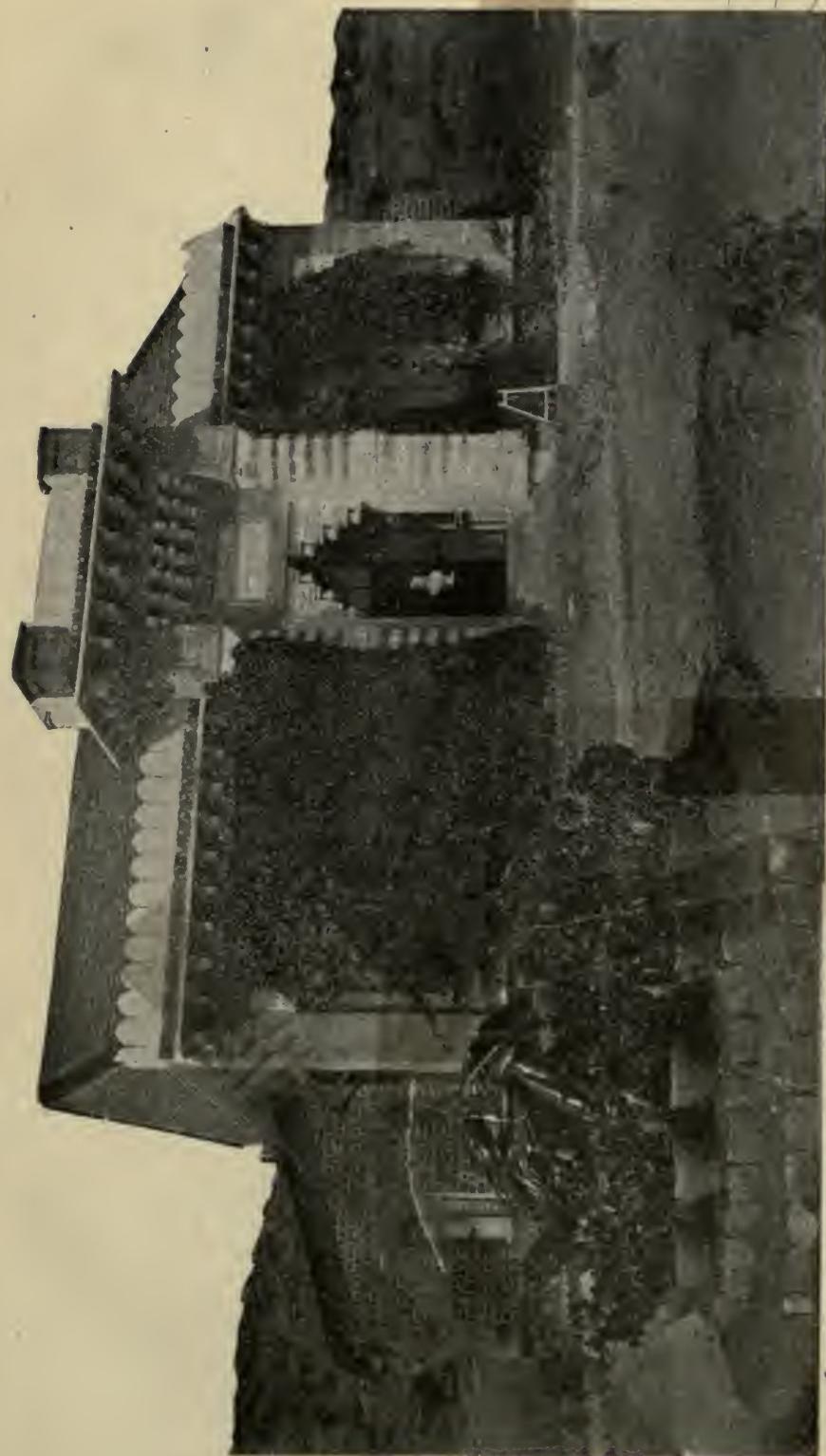




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The J. N. Tata Hall of the Bhandarkar Institute, where the Exhibition was arranged.

PROCEEDINGS & TRANSACTIONS
OF THE
FIRST ORIENTAL CONFERENCE, POONA

Held on the 5th, 6th and 7th of November 1919

Vol. I

Bhandarkar Oriental Research Institute Poona

1920.

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Joint Secretary, First Oriental Conference.

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The Young Volunteers of the Conference.

Working Committee of the First Oriental Conference, Poona, together with the Vice-Presidents.



The Chairman of the Reception Committee and the two Vice-Presidents in the centre and the three Secretaries behind.

PREFACE.

The idea of holding, under the auspices of the Bhandarkar Oriental Research Institute, a Conference of Orientalists in India, Burma and Ceylon,—an idea which had been in the minds of the promoters of the Institute since its very foundation—, took material shape in the following resolution of the Executive Board of the Institute, passed on the 12th of December 1918.

"That it is desirable to hold a Conference of Orientalists in India, if possible, in Poona, in the month of May (1919) and that with that view, correspondence be opened with eminent scholars in India, requesting them to communicate to the Secretary their opinions on the subject in about a month's time."

The Secretary, accordingly, about the middle of January 1919, addressed the following letter to about twenty-five prominent Orientalists in India :—

"DEAR SIR,

The Executive Board of the Bhandarkar Oriental Research Institute thinks it desirable to hold an All-India Conference of Orientalists at Poona, if possible in the month of May 1919. This would be the first Conference of its kind in India, and it will be repeated periodically at different centres.

The necessity and utility of such a Conference need not be emphasised. You are probably aware that, in the Conference of Orientalists summoned at Simla by the Hon. Sir Harcourt Butler in July 1911, Dr. Vogel had laid before the scholars assembled, a plan for holding an Oriental Congress in India (*Vide* the Report of the Conference of Orientalists, including Museums and Archaeology, held at Simla in 1911, page 66 ff.) The present plan is a modest one, in that it is

to be a Conference, at first, of all Orientalists in India, and limited in its sphere, as the memo* of notes below will show.

You are cordially invited to indicate your opinion about the scheme and the time proposed for the holding of the first Conference in Poona, and to offer any other remarks or suggestions you deem necessary. The co-operation of scholars like you is earnestly solicited. If the idea meets with general approval, further necessary steps in the matter (e. g. appointing a committee etc.) will be taken by the Institute in consultation with you all.

I shall feel obliged if you kindly communicate your views in details, so as to reach me before the end of February 1919.

Yours sincerely,
P. D. GUNE,
Secretary."

All the scholars thus consulted, unanimously hailed the idea of such a Conference and generally approved of the scheme. But the time proposed was found inconvenient to many, and the Executive Board, while changing it to October in deference to their wishes, appointed the following Working Committee (with power to add) on the 3rd of March 1919.

Prof. V. K. Rajwade, Mr. K. G. Joshi, Dr. V. S. Ghate, Dr. S. K. Belvalkar, Prof. R. D. Ranade, Dr. N. G. Sardesai, Prof. R. D. Karmarkar, Mr. N. B. Utgikar, and Dr. P. D. Gune, (i. e. the nine members of the Executive Board, and Dr. V. S. Sukthankar, Prof. A. B. Dhruva, Prof. D. R. Bhandarkar, Prof. M. Hiriyanna, Dr. Ganganath Jha, Mahāmāhopādhyāya Harprasad Shastri, Mr. D. V. Potdar and one Representative of the Bombay Branch of the Royal Asiatic Society were elected members. Dr. S. K. Belvalkar was appointed Secretary and Prof. R. D. Karmarkar, Assistant Secretary. But on the former's declining to do the work of a Secretary, the Board on the 6th March 1919 appointed Dr.

* A memorandum of points to be considered in this connection, such as the aims and objects, ways and means, subjects to be discussed etc., was also attached; but as it is almost the same as the one included in the *first Bulletin*, it is given further below.

P. D. Gune, Prof. R. D. Karmarkar and Mr. N. B. Utgikar
Joint Secretaries.

The Secretaries, with the approval of the Committee, sent, on the 22nd of March 1919, the following letter to about five hundred scholars and Pandits all over India. This may be said to be the *first Bulletin* of the Working Committee of the Conference. As this was the first formal letter of the Conference, it is given here in extenso.

"SIR,

We are glad to inform you that the prominent Orientalists whom the Institute had approached some time ago, with the object of ascertaining their views regarding the desirability of holding an All-India Oriental Conference, have signified their approval of the idea. The Institute has therefore decided to hold a conference in Poona of the Orientalists in India, Burma and Ceylon, by the end of October or by the beginning of November next. This time has been fixed in deference to the consensus of opinion of scholars written to. The Institute has now appointed a working committee of the persons noted overleaf to carry on all work regarding the First Oriental Conference.

2. The memorandum of the subjects to be dealt with at the Conference, and of the ways and means proposed, is attached herewith, and we hope it meets with your approval. We have now to request you to lend us your hearty and active co-operation and advice, by personally attending the Conference and taking part in its deliberations, and by trying to enlist the sympathy of other lovers of Oriental learning known to you as likely to render literary or financial help. You will therefore kindly communicate to us the names of all such persons, whom we shall be very glad to approach. Awaiting the favour of an early reply,

Yours truly
 P. D. GUNE.
 R. D. KARMARKAR.
 N. B. UTGIKAR.
Secretaries.

[As the list of Members of the Working Committee has been already given at p. [2], it is not repeated here.]

Memo of Notes on the All-India Conference of Orientalists of 1919.

1. Necessity :—

Conferences in other branches of learning such as Mathematics, Science, History, Economics, Engineering &c., are now held in India from time to time. A similar Conference for Oriental Subjects is a long-felt want. If this Conference meets with success, it might be held periodically at different centres of learning in India.

2. Aims and objects :—

(1) To bring together Orientalists of all provinces of India, in order to take stock of the various activities of Oriental scholars in India.

(2) To facilitate co-operation in Oriental Studies and Research.

(3) To afford opportunities to scholars to put forth their views on their respective subjects and to ventilate the difficulties experienced in the way of their special branches of study.

(4) To promote social and intellectual intercourse among Oriental scholars.

(5) To keep pace with the march of scholarship in Europe and America.

3. Subjects to be included in the programme of the Conference :—

(1) Sanskrit Language and Literature, (2) Avesta in its relation to Sanskrit, (3) Pali, (4) Jain and other Prakrits, (5) Philology of Indian Languages, ancient and modern, (6) Modern Languages and Literature in their oldest phase, (7) Archaeology, Epigraphy, Numismatics, and Ancient Art, (8) History (Ancient), Geography, and Chronology, (9) Technical Sciences (e. g. Ancient Medicine, Music &c.), (10) Ethnology and Folk-lore, (11) Persian and Arabic, (12) General :—(a) Present position of

the academical study of Sanskrit and allied languages (e. g. in Universities, Sanskrit Colleges, Pathashalas, &c.), (b) Old Shastric Learning, (c) A Uniform Transliteration System.

4. Membership and attendance :—

(1) All scholars and learned persons interested in the advancement of Oriental Studies, would be eligible to become members of the Conference.

(2) All Governments, Native States and Learned Institutions would be requested to send members and representatives to the Conference, and to allow scholars in their employment to take part in its deliberations.

(3) Boarding and lodging arrangements will be made, if required, for members at an extra charge.

(4) It is expected that the work of the Conference will last for three or four days, the proceedings opening with an inaugural address.

5. Deliberations etc. :—

Scholars in India, Burma and Ceylon, will be requested to attend or send papers. In order that the discussion may take a fruitful turn, it may be necessary to have summaries of the papers sent well in advance for being printed and supplied to members. All papers and important points of discussion to be ready in manuscript.

The proceedings may soon be published after the Conference is over, containing, as circumstances may permit, abstracts of papers and discussion, or even whole papers.

The balance remaining after defraying all expenses in connection with the Conference may form the nucleus of a fund for such Conferences, to be administered by a representative committee of scholars.

Ways and means :—

It is expected that the expenditure on account of the proposed Conference would be Rs. 8000—(eight thousand).

It is therefore proposed :—

- (1) To approach all Governments, Native States and learned Institutions (Oriental) for their approval of the scheme and for rendering direct monetary help.
- (2) To invite public support.
- (3) To charge a small delegate's fee (some five rupees) from those who would join the Conference as members."

The response evoked by this letter was without exaggeration splendid, as some hundred and twenty-five scholars all over India promised hearty co-operation and communicated the names of the papers that they would send, and, if possible, read personally. Meanwhile, letters were sent to the various Governments, Native States and learned Institutions all over India, seeking co-operation by (i) giving monetary help, (ii) sending rare manuscripts, coins, paintings, etc. for the exhibition to be held in connection with the Conference, and (iii) sending representatives to attend the Conference. The response from this direction also was beyond expectation.

The Working Committee held 9 meetings in all, and considered points like (i) fees to be charged to delegates—these were fixed at Rs. 5/-, (ii) accommodation and conveyances for delegates—both were to be supplied free of charge—, (iii) election of the President of the Conference, (iv) selecting the site for the pandal and decorations, (v) settling the dates of the Conference to be the 30th, 31st of October and the 1st of November 1919, (vi) requesting His Excellency Sir George Lloyd, G. C. I. E., D. S. O., Governor of Bombay, to open the Conference and to agree to become its Patron, (vii) fixing the programme of the three days of the Conference and announcing it in the form of a bulletin, (viii) appointing sub-committees to look to the different items, like the accommodation of scholars, pandal and seating arrangements exhibition, the literary part, etc., (ix) appointing a Reception Committee with Mr. V. P. Vaidya, B. A., Bar-at-Law, J. P., of Bombay as chairman, etc.

The dates had to be subsequently changed to the 5th, 6th and 7th of November, in order to suit His Excellency who had to come down to Poona specially for the purpose

The *Second Bulletin* gave (i) the names of the papers promised by scholars for the different sections, (ii) the names of the representatives of the Universities, learned Societies including Museums, Governments and Native States, and (iii) the pecuniary help promised by the different Governments and Native States.

The *Third Bulletin*, issued on the 2nd of October 1919, contained all information useful to delegates during travel and on arrival at Poona, such as (i) the times of arrival in Poona of the principal trains coming from important centres, (ii) clothing etc. required according to the climatic conditions of Poona, (iii) lodging and boarding arrangements for guests etc.

The *Fourth* and the most important *Bulletin*, which was issued on the 3rd of November and was personally handed over to the delegates, contained the final and correct list of papers with the names of their writers, supplementary list of representatives sent by learned societies and the detailed programme of the three days of the Conference as under :—

Programme of the three days of the Conference.

- (a) First sitting: 11 a. m. to 1 p. m. on Wednesday the 5th.
 - (1) The speech of Mr. V. P. Vaidya, Bar-at-Law, Chairman of the Reception Committee, welcoming Their Excellencies and the guests.
 - (2) Opening speech of H. E. Sir George Lloyd, Governor of Bombay.
 - (3) Election of Sir R.G. Bhandarkar as President of the First Oriental Conference.
Proposed by :—Principal A. C. Wooller,
Seconded by :—Prof. S. Kuppuswami Shastri,
Supported by:—S. Khuda Bukhsh, Esq.
 - (4) Presidential Address.
 - (5) Election of Vice-Presidents.
 - (6) Appointment of a Committee to discuss suggestions sent by scholars.
- (b) Second sitting : 2-30 to 5-50 p. m., the same day.
 - (1) Election of Chairmen for sectional meetings.
 - (2) Reports of Oriental and Research Institutions.
 - (3) *Mahābhārata* work; question of drapery and progress of collation work.

(4) Reading of the following papers of general interest selected by the Committee.

Sams-ul-Ulama Sayyad Muhammad Amin, Jubbulpore.	A short Note on the Arabic Language.
Maung Schwe Zan Aung, Esq., Rangoon.	The Buddhist Philosophy of Change.
Dr. Gauranganath Banerjee, Calcutta.	Indian as known to the ancient World.
Prof. D. R. Bhandarkar, Calcutta.	The Origin of Indian Alphabet.
P. B. Desai Esq., Bombay.	Okhaharana in the Shahnameh.
Prof. M. Hiriyanna, Mysore.	Indian Aesthetics.
S. K. Hodiwala, Esq., Bombay.	Varuna, the prototype of Ahura-mazda.
Dr. Ganganath Jha, Benares.	Theism of Gautama, the founder of Nyāya.

(c) Third sitting :—8-30 to 10-30 a. m. Thursday the 6th November.

The Conference will split itself up into the following sections :—
Sections. Chairmen.

Veda and Avesta.	Dr. R. Zimmermann and Dr. J. J. Modi.
Classical Literature and Modern Vernaculars.	Prof. S. Kuppuswami Shastri.
Ethnology and Folklore, Persian and Arabic.	Dr. Modi and S. Khuda Bukhsh Esq.
Technical Science.	G. R. Kaye, Esq.
Archaeology.	Prof. D. R. Bhandarkar.

(d) Fourth sitting : 2-30 to 5-30 p. m. the same day.

Sections. Chairmen.

Philosophy.	Dr. Ganganath Jha.
Buddhism.	Dr. Satis Chandra Vidyabhusana.
Ancient History.	Prof. Krishnaswami Aiyangar.
Philology and Prakrits.	Prof. V. K. Rajwade.

(e) Fifth sitting : 8-30 to 10-30 a. m., Friday, the 7th November.

General Session. The following papers selected by the Committee will be read :—

Principal A. C. Woolner, Lahore.	The philological Argument for the upper Limit to the Age of the Rgveda.
G. R. Kaye, Esq., Simla.	Nakṣatras and Precession.
Dr. R. C. Majumdar, Calcutta.	The early History of the Gurjaras.

Prof. Panchanana Maitra, Calcutta.	The earliest prehistoric Relations between India and the West.
Dr. J. J. Modi, Bombay.	King Akbar and the Persian translations from Sanskrit.
Prof. Radhakumud Mookerji, Mysore.	Educational Organisation in the Upaniṣads.
J. D. Nadirshah, Esq., Bombay.	Aryana Vaejo, or the Cradle of Indo-Āryan Civilisation.
Prof. V. K. Rajwade, Poona.	Asurasya Māyā in the R̥gveda.
Dr. Satis Chandra Vidyabhusana, Calcutta.	Nāgārjuna, the earliest writer of the Renaissance Period.
Prof. N. Sahidullah, Calcutta.	Māgadhi Prakrit and Bengali.
Rev. Dr. G. P. Taylor, Ahmedabad.	Note on some Valabhi Coins.

(f) Sixth sitting : 2-30 to 5 p. m. the same day.

- (1) Consideration of the Report of the Committee appointed at the first sitting.
- (2) General resolutions regarding the constitution of the Conference, etc.
- (3) Teaching of Second Languages at the Universities, Transliteration System etc.

The same Bulletin also showed where scholars were to be lodged. Four different centres had to be chosen for this purpose :—(i) the Vaidikashram, the Avate and the Lele quarters and the guest house of the Servants of India Society—all within 5 to 10 minutes' walk from the pandal erected in front of the Institute ; (ii) the National Hotel just opposite the Railway Station, where Parsee delegates were accommodated ; (iii) No. 15, Elphinstone Read, (Camp), which place with all arrangements and comforts, was kindly placed at the disposal of our Mahomedan delegates by the Hon'ble Khan Bahadur Ibrahim Haroon Jaffar, who magnanimously treated our delegates as his personal guests ; (iv) and the Sangam Bungalow, where Mr. P. E. Percival, I. C. S., then District Judge of Poona, very kindly treated our European delegates as his personal guests.

Three motor cars and seven or eight first class gharries were in attendance for five days, carrying delegates from the station to their residences and from the latter to the pandal and vice versa. A young band of enthusiastic College and High-School boys served as volunteers and were

always at the beck and call of the delegates, studying their comforts.

The whole staff of the Institute very naturally looked to one kind of business or another in connection with the Conference and did us excellent service in a spirit of noble selflessness. They did nothing more nor less than their duty as they think, but none the less, our most cordial thanks are due to them and to the young volunteers. Amongst the latter, we cannot but make special mention of Mr. Tamhankar, B. A., our Head Volunteer, and Mr. L. V. Vaidya, the son of the chairman of the Reception Committee, who managed the volunteers so ably and by personal example cheered them on to do any piece of work that fell upon them.

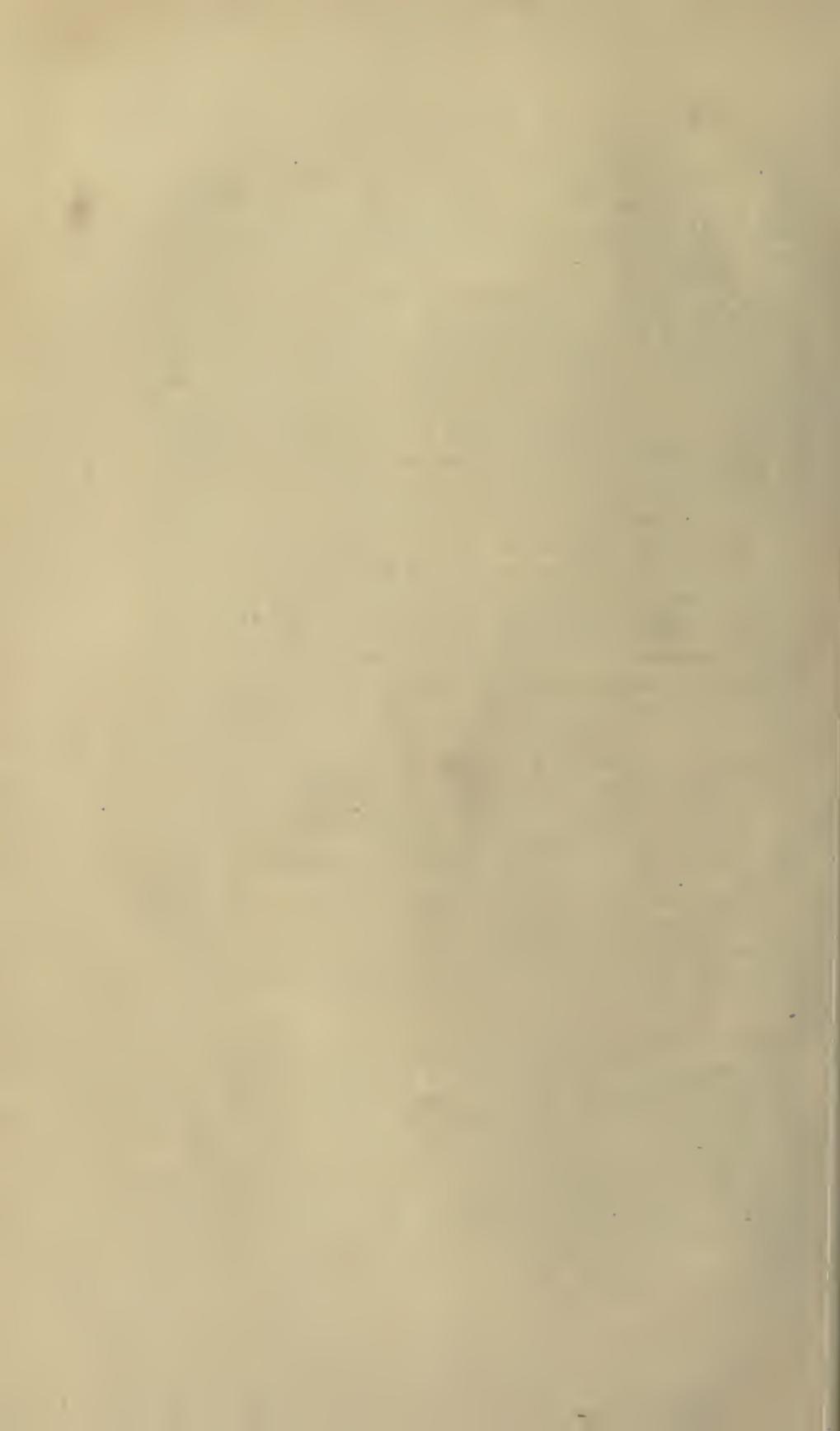
In the literary work that had to be done immediately before the Conference, for instance, the printing of the summaries of papers, we have to record our deep obligations to Prof. C. V. Rajwade, M. A., of Baroda and Prof. P. L. Vaidya, B. A., of Sangli, who, now by turns and now together, attended the Aryabhushan Press to see through the printing. Had it not been for their timely and willing help, we doubt if we could have placed the summaries in printed form (although in the last-proof stage) in the hands of our delegates in time. Our thanks are also due to the manager of the Aryabhushan Press, who did the printing work of the *Summaries* at high pressure and to the Manager of the Orphanage Press, who did the printing of the fourth Bulletin with a map of Poona, in time to be useful to the delegates, and the addresses of the Chairman of the Reception Committee and the President so beautifully.

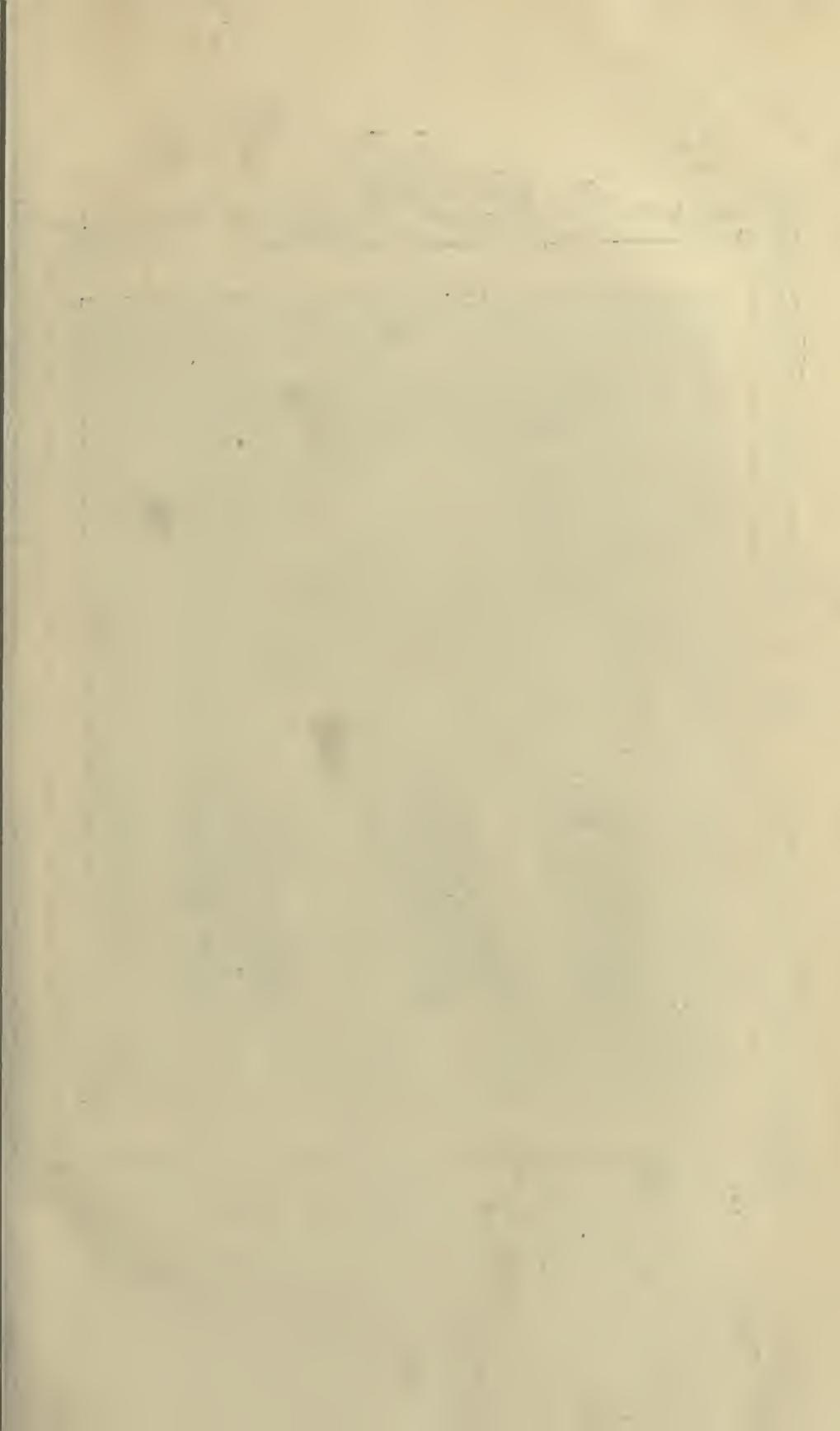
While the Secretaries, always in consultation with the Working Committee, looked to the literary part, to the comfort of scholars, the seating and other arrangements and the actual conduct of business during the three busy days, Dr S. K. Belvalkar, helped by representatives from different museums and libraries, was in charge of the Exhibition, where old Manuscripts, illuminated scrolls, rare coins and paintings, were beautifully arranged on tables and in show-

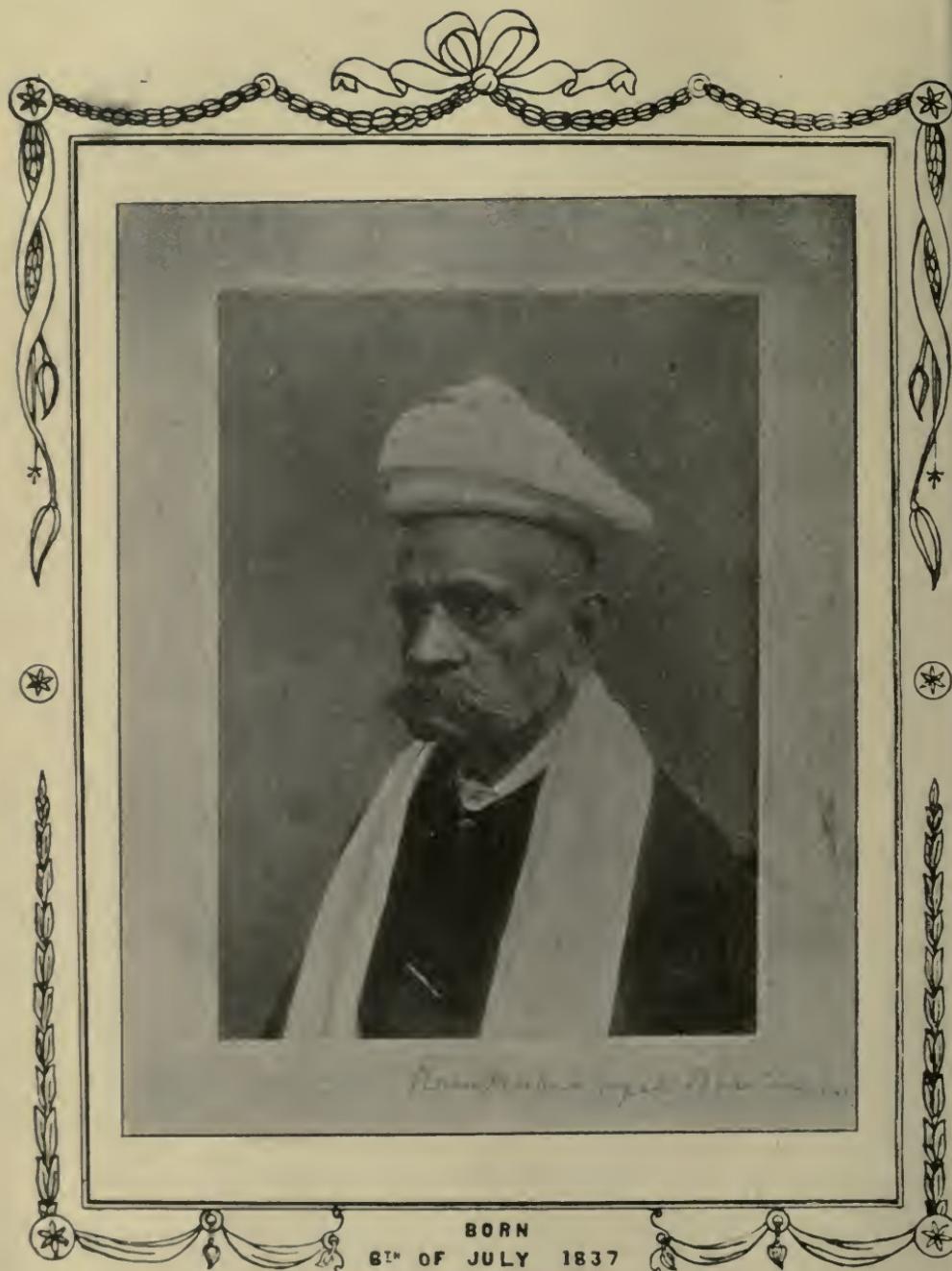
cases made specially for the purpose. A list of the more important exhibits with the names of Institutions, Governments and States that kindly lent them, will be found at the end of the *Proceedings*.

As to the success or otherwise of the Conference, the literary world will be able to judge when the *Proceedings* and the volume of papers will be in their hands. We, on our part, feel it our duty to acknowledge that, whatever was achieved, was mainly due to the loyal co-operation of the Working Committee, the cheerful accommodating spirit of the scholars, and particularly to the willing help always rendered by Professors D. D. Kapadia and N. D. Minocher Homji of the Deccan College and by Barrister V. P. Vaidya and Dr. Zimmermann of Bombay. These gentlemen, not only gave advice whenever consulted, but also ungrudgingly did every service that was required of them in the interest of the First Oriental Conference. In common with them and other members of the Working Committee, we share the rare comfort of having served unselfishly a great and noble cause.

P. D. GUNE,
 R. D. KARMARKAR,
 N. B. UTGIKAR,
 Honorary Secretaries,
 First Oriental Conference,
 POONA.







Sir R. G. Bhandarkar, President of the First Oriental Conference, Poona.

THE
FIRST ORIENTAL CONFERENCE, POONA

PROCEEDINGS

I.—FIRST SITTING, WEDNESDAY, THE 5TH OF NOVEMBER.

11 A. M. to 1 P. M.

1. The First Oriental Conference met in a spacious pandal erected specially for the purpose in front of the Bhandarkar Institute, at 11 A. M. on Wednesday the 5th of November 1919. Many distinguished persons such as the Chief of Aundh, the Chief of Sangli, the Chief of Miraj, the Yuvarajas of Aundh and Bhor, the Hon. Sir George Carmichael and Lady Carmichael, the Hon. Sir Ibrahim Rahimtoola, the Hon. Mr. Curtis, the Hon. Mr. R. P. Paranjpye, the Hon. Mr. Covernton and Mrs. Covernton, Mr. G. A. Thomas and Mrs. Thomas, Dr. D. Mackichan, the Hon. Khan Bahadur Ibrahim Haroon Jaffar, and the Hon. Mr. Upasani among others, all the delegates (vide Appendix A.) and some five hundred visitors were in attendance. His Excellency Sir George Lloyd, G. C. I. E., D. S. O., Governor of Bombay, and Patron of the Conference, arrived at 11 A. M. precisely and was received at the entrance by the Chief of Aundh, the Chairman of the Reception Committee and the Secretaries.

2. The proceedings began with the following address of welcome by Mr. V. P. Vaidya, B.A., Bar-at-Law, J. P., Chairman of the Reception Committee.

"YOUR EXCELLENCY, LADIES AND GENTLEMEN,

On behalf of our Reception Committee, I feel great pleasure to welcome you all to this First Conference of the

Orientalists in India, which is an event of exceptional interest and importance in the annals of learning in this country.

The idea of bringing savants of different countries together, where they can make acquaintances and discuss questions of Oriental studies, was started in Europe and in the year 1873 the First International Congress of the Orientalists met at Paris, that great city of learning, arts and progress. The next year the Congress met in London, a place again distinguished for its interests of Commerce, Educational activities and Inauguration of Western civilization in India, where the English nation has undertaken the duties of governing the people of different languages, of varied religions and of a vast indigenous literature, which, even after the work of centuries, remains only partially explored. In this the 2nd Congress, India was represented by no less a scholar than the late Mr. Shankar Pandurang Pandit, whose labour in the research of the Indian literature, recognized on all hands, was as remarkable as his services to the country, both as a distinguished officer of the Government and as an administrator of an Indian State. Several Congresses have met thereafter in the prominent capitals of Europe and I see here amongst us some of the learned men of India, who were invited there and who made impression on their brethren, which has elicited opinions of respect and admiration. To name some of them, they were Dr. Ramkrishna, Dr. J. J. Modi, the late Dr. H. H. Dhruva, and other younger men most of whom are present here.

The question of bringing the International Congress of Orientalists to India, was suggested several times, but was dropped on account of the difficulties of long distance and the time that the European scholars may not be able to spare, even in their vacations. In the meantime, India was preparing young men to take up the work so eminently done by their aged professors and friends. Some of these young men proceeded to the Universities in England and the Continent and studied the methods for which European scholarship is distinguished ; while others imbibed the spirit from the inspiring example of Gurus like Sir Ramkrishna. As a result we see to-day amongst us Indian scholars whose distinction

for learning, research and judgment can do honour even to the eminent savants under whom they took their lessons in the Indian and European Universities.

In response to the general desire of people interested in the Oriental learning, the Bhandarkar Institute proposed to have a conference in India, where the work so ably commenced in Europe and carried on for nearly a quarter of a century, would be continued with facilities and first-hand information, which could be easily made available in this country. As a prominent seat of learning in Western India, as the residence of Sir Ramkrishna Bhandarkar, whose reputation, not only in India but in the whole world, as an Orientalist of unprecedented eminence, remains unchallenged, Poona suggested itself as the best place for the first gathering of this importance. Gentlemen taking interest in the question were consulted, Government and learned bodies were approached and they all with one voice agreed to support. Your Excellency's Government was the first to come forward with a handsome donation of Rs. 1500/- and the further allowance of travelling facilities and other concessions to the scholars of this province who proposed to attend the Conference. The Imperial Government of India has been pleased to send us Rs. 1000/-. The Bengal and the United Provinces Governments have sanctioned grants of Rs. 1500/- and Rs. 2000/- respectively; the Government of Burma has sanctioned Rs. 500 - and allowed similar facilities to scholars. His Most Exalted Highness the Nizam of Hyderabad, His Highness the Gaekwar of Baroda and H. H. the Maharaja of Mysore have contributed Rs. 1000/- each and have further favoured us by sending scholars from their States with exhibits of Manuscripts, Inscriptions, and Coins for our Exhibition. H. H. the Maharaja Holkar of Indore and H. H. the Maharaja of Bhavnagar, H. H. the Maharaja of Dhrangadhra, and the Administrator of Junagadh State have each contributed Rs. 500/-. Thakorsaheb Daulatsinghji of Limbdi, who is a good student of Sanskrit literature, has sent Rs. 250/. A number of scholars and gentlemen interested in learning have become Vice-patrons of the Conference by subscribing Rs. 100/- each.

Our expenses were estimated at Rs. 8,000 to 10,000, but the mass of literature sent to us by way of papers by scholars, has far exceeded our expectations, and I should consider it fortunate if our expenses do not exceed Rs. 15,000.

The Universities of Calcutta, Bombay, Punjab, Allahabad and Mysore and the Council of Post-Graduate Teaching at Calcutta have sent us 20 delegates. Fourteen learned Associations and Institutions have deputed about 50 delegates. The Museums of Calcutta, Patna, Bombay, Madras, Rajkot, Bhavnagar, Bhopal, Jodhpur, the Archæological Departments of Mysore, Baroda, Madras, Punjab and Bombay, and the Cama Institute have sent us exhibits of antiquarian interest. The Governments of Baroda, Gwalior, Mysore, Bhavnagar and Jhalwar have deputed special representatives. Delegates have come from all parts of India, including such distant places as Kashmere and Ceylon.

The papers sent by scholars, which number about 120, deal with almost all the different branches of Oriental learning such as History, Inscription-reading, Philosophy, Philology—Vedic and Prakritic, Numismatics, and several other subjects which are classified by us under twelve heads. The number is so large for a session that we propose to work by sectional meetings.

One feature of our Conference will be to discuss a scheme prepared under the patronage of Shrimant Balasaheb Pant Pratinidhi of Aundh, a veritable scholar himself. The scheme relates to the preparation of a critical edition of the *Mahābhārata*, the great epic of India. The question of the *Mahābhārata* is being discussed in Europe for the last fifty years. The preparation of an authentic edition of the *Mahābhārata* is beset with difficulties which would dishearten any scholar, unless he is supported by a band of workers who are ready to devote, perhaps, their whole life to the work. Shrimant Balasaheb Pant Pratinidhi promises us help which would amount to nearly a lac of rupees, which is about a third of the estimated cost. Scholars as to whose reliability we have no doubt, have come forward to help us and a small number of them have promised to exclusively engage them-

selves for the work of bringing to light a correct and critically prepared edition of the *Mahābhārata*, which is the desideratum of each and every scholar of Indian learning.

I should not forget to mention the Institution under whose auspices we meet here. The Bhandarkar Oriental Research Institute, named after the old venerable scholar whose devotion and single-minded exertions for the propagation of Sanskrit learning have created an atmosphere in Poona, the parallel of which is extremely difficult to find, was organised by the young scholars as a memorial to their saintly Guru, who to them is an ancient R̄si incarnate, a man of pure convictions and courage, an example of purity of life, purity of thought and purity of actions. Sir Dorabji Tata and the late Sir Ratan Tata were the first to endow the institution with a magnificent grant of Rs. 21,000/- from which we have erected the Tata Hall for the Bhandarkar Institute. Shet Hirji Khetsey, a rich Jain merchant, has made an equally magnificent grant of Rs. 25,000/- for adding a wing to that hall, to house the books and manuscripts which we have and which we may hereafter acquire. There are scholars and gentlemen interested in the work, who have given contributions and they are nominated patrons, vice-patrons and benefactors. The Government of Bombay have transferred to the Institute their extremely valuable collection of Sanskrit and other manuscripts. Sir Ramkrishna himself has made us a gift of his whole library, nearly 3,000 volumes of rare merit. This Institute takes the leading part in all the responsibilities of holding this conference. On behalf of this Institution also, I welcome you and say that we greatly appreciate the kindness and consideration of Your Excellency in coming here to grace the occasion and in agreeing to open the Conference. I will now request Your Excellency to formally open the Conference."

3. His Excellency, in rising to open the Conference, made the following speech :—

"MR. VAIDYA, LADIES AND GENTLEMEN,

It is with the greatest regret that I have to announce to you that Sir Ramkrishna Bhandarkar is too unwell to attend

this Conference. In view of all that he has done to bring about this Conference here at Poona, as well as in view of the affectionate regard and esteem with which his name is known throughout India, I am sure that we all at this Conference shall express our regrets at his inability to be here, and our desire that he shall soon be healthy and strong again, and able to pursue the work in research to which he has given so much time and attention.

It is a very great pleasure to me to come to the opening of this Conference, and I thank you very heartily for the cordial welcome which you have offered to me. I in turn, as the head of this Presidency, would like not only to extend my warmest welcome to all those distinguished scholars who have done us the honour to come to this Conference from all parts of India, but to express the satisfaction which this Presidency feels at being selected as the scene of your first deliberations. I trust that you will profit by your stay among us and will go away with pleasant recollections of this, the first Conference of Orientalists in India.

The history of its inception is an interesting one. International Congresses of Orientalists have, as is well-known, been regularly held in the various capitals of Europe for many years past. At the Congress that was held at Copenhagen, Professor Macdonell of Oxford put forward a proposal that one of these Congresses should be held in India, but the suggestion had to be discarded for several obvious reasons. After this, Professor Macdonell attempted to arrange for a meeting of the Indian section of the Congress at Calcutta. This proposal, too, fell through for want of support in India. In 1902 the Conference that was called the *Premier Congress international des etudes d'Extreme Orient* was held at Hanoi in Tokin under the auspices of the *Ecole Francaise d'Extreme Orient*. This Congress dealt with three out of the usual eleven sections dealt with by the European Conferences, namely, India, China and Japan, and Further India. The number of members from India who attended this Congress was very small; but the proceedings of the Congress attained, as I understand, a very high standard of scholarship, and on the whole it was a great success. In

1911, Sir Harcourt Butler called a meeting of distinguished Orientalists in India at Simla, where very interesting discussions took place, and where definite proposals were put forward by Professor Vogel for the establishment of an Oriental Research Institute and also for the inception of a Congress of Orientalists in India. As the result of these discussions and of the strong desire of those fortunate students who had come in touch with Sir Ramkrishna Bhandarkar to do honour to their revered Guru, the Bhandarkar Oriental Research Institute of Poona was founded with the help of the generous support of certain public-minded citizens of Bombay, at least one of whom may be amongst us to-day—I refer to Sir Dorab Tata. Last year the Bhandarkar Oriental Research Institute conceived the idea of holding an All-India Conference on the model suggested by Dr. Vogel, and they accordingly consulted various leading scholars and institutions in India, all of whom enthusiastically acclaimed the idea. The Institute thereupon took up the matter energetically, and this Conference at which we are privileged to attend, is the result of their labours. I am sure that you will all agree with me that Sir Ramkrishna Bhandarkar and his helpers of the Oriental Research Institute are deserving of our warmest congratulations, both for the courage and enthusiasm with which they have organized the Conference and for their good fortune in having such generous supporters. I am more usually in the position of listening to requests for money ; but to day it is my task to tender thanks to all who have supported and given help to the present Conference, and confidently to appeal to them to give their generous support to the new developments which will, I am convinced, be the result of your discussions this week.

The purposes which have been in view in holding such a Conference, are very succinctly laid down in the memorandum issued by the Secretaries to the Conference, and I will not repeat them here. Such Conferences are of value not only to the scholars throughout the world, but also to the general public. Those present have the advantage of meeting each other and of discussing topics of mutual interest. Scholars abroad will read with interest the many papers which have

been contributed, and the reports of the work of the Conference which will be issued later. Lastly, the general public will have the interest in these subjects awakened or stimulated, and fresh enthusiasts in the cause of Orientalism in India will be attracted.

Sir Ramkrishna Bhandarkar, in the address which he should have read to you, but which will now be read by another gentleman, would give you two very excellent pieces of advice. He will tell you to avoid undue artificiality and to preserve a sane and judicial outlook when discussing controversial matters. This is an advice which it is very easy to give on the platform, but extremely difficult to follow when we are involved in the heat of our favourite controversy. It is not rare in the House of Commons to see two honourable members criticising each other's views in the most unmeasured terms, and, after the debate, displaying every symptom of personal amity and mutual respect. And so it is in the controversies in which you all, I am sure, indulge. Sir Ramkrishna will tell you that in the field of critical interpretation of historical records, Europe has given the lead, and that up to the present, the great bulk of critical appreciation of the various forms of ancient Indian record is the result of the work of European Orientalists. Sir Ramkrishna says that it is a natural tendency for an Indian, when discussing the past of India, to lay stress on Indian influences; and for a European to stress the outside influences which are known to have so largely affected the early growth of institutions in India. This is probably quite true, and there is no great harm in it. A European scholar has the advantage of taking an outside, detached point of view, while an Indian undoubtedly profits from his superior aptitude for dealing with Sanskrit and the mother tongues of India. Up till now the work done by European Orientalists has held the ground, but many Indians are now following the inspiring example set by Sir Ramkrishna Bhandarkar and will soon rival their European Confreres in the Indian branch of Oriental study. The holding of such Conferences as this in India will, I hope, serve to focus the attention of European scholars on the very valuable work that is being done

in India. I trust that, in the next Conference which will be held in India, European scholars who are interested in Indian problems will be invited to attend; and also that more Indians will find time and opportunity to visit Europe and discuss these questions with their brother critics. Nothing but good can come of such meetings. The prejudices of each side will be softened by debate and the history of the past will be seen in its true perspective.

There are two other matters to which I would draw your attention. I hope to be able to find time to see the very interesting collection of antiquities of all kinds which have been brought together by the kindness of many Governments, States and Societies. Such a collection is unique and should prove of very great interest to us all. Secondly, I would call your attention to the tremendous task which the Bhandarkar Oriental Research Institute has taken upon itself with the encouragement and support of the Chief of Aundh, whose munificent and princely donation I would warmly acknowledge to-day; I refer to the critical edition of the *Mahābhārata* which the Institute has undertaken. This is a monumental task, and, if undertaken at all, must be carried through with the greatest care and completeness. Not only money is needed, but also the support and encouragement of all Scholars who are really interested in the work. I trust that as a result of this gathering, this project will be put on a sound footing.

Well, ladies and gentlemen, I do not propose to speak upon any technical subject this morning; for, to judge by the very wide range of subjects on your programme, you will, in the time at your disposal, have the greatest difficulty in hearing the views of all those many distinguished scholars who are here to-day. I have always taken great interest in matters antiquarian and Oriental, both before I arrived in India during my somewhat extensive travels in the East, and also since my arrival in Bombay. I have found in the Bombay Presidency much to interest me in the many ancient monuments which exist at Poona, Bijapur, Ahmedabad, Sholapur, and even in Sind; and I have done and always will do my best to help students by paying special attention

to the preservation of such ancient monuments and other places of interest.

I cannot conclude without congratulating the Secretaries to this Conference on the very able way in which they have carried out the organisation of the meeting. I shall follow your doings with the greatest interest, and I trust that you will all enjoy your visit to Poona and will profit by the discussions and by the friendships which you will make while at Poona.

I have in final conclusion to express the very great regrets of Lady Lloyd, who, up to the last minute, had hoped to come here to-day; but who, owing to a slight riding accident, is not quite well enough to attend; otherwise it would have given her the greatest pleasure to come and meet, in common with myself, the distinguished ladies and gentlemen who have come to this Conference.

Mr. Chairman, I have much pleasure in declaring this Conference open."

4. On the conclusion of His Excellency's speech, Principal A. C. Woolner of the Oriental College, Lahore, rose to propose that Sir R. G. Bhandarkar should be the President of the First Oriental Conference. Principal Woolner said :

" YOUR EXCELLENCY, LADIES AND GENTLEMEN,

I have to perform the pleasant duty of proposing that Sir R. G. Bhandarkar should be the President of this First Conference of Orientalists in India. I see no person better fitted for the task than Sir Ramkrishna Bhandarkar, whose indefatigable energy and patience in the cause of Oriental Research for over half a century, are so well known. From his early youth, he took part in discussing on various oriental subjects with such scholars as Drs. Weber, Bühler and Peterson. It was against the latter, that he so successfully maintained his theory about the date of Patañjali which has become one of the important landmarks in ancient Indian Chronology. His patient search for MSS and the carefully drawn up reports, so full of new matter, information and research, are too well known to be mentioned here. His

sphere of research has been a wide one, including Archaeology, Epigraphy, Ancient History, Vedic studies, Philology of the Indian Vernaculars and History of religious sects, among others. Even as late as 1913, when Sir Ramkrishna was in failing health and advanced age which cost him his sight, he has given us his magnum opus *Vaisnavism, Saivism and minor religious sects.*"

Professor S. Kuppuswami Shastri of the Presidency College, Madras, in seconding the proposal said :—

" YOUR EXCELLENCY, LADIES AND GENTLEMEN,

I belong to the generation of scholars who can be called Sir Ramkrishna's literary grand-children. It would therefore be presumption for me to discant upon our grandfather's qualities. I heartily second the proposal."

Upon Prof. S. Khuda Bukhsh of the Calcutta University, and Dr. T. K. Laddu of the Queen's College, Benares, supporting the proposal, it was carried with acclamations.

5. In view of the fact that Sir Ramkrishna was prevented from attending the Conference by illness, the Conference proceeded to elect two Vice-Presidents for the conduct of business. Prof. D. R. Bhandarkar of the Calcutta University proposed, and Prof. Hiriyanna of the Maharaja's College, Mysore, seconded, that Principal A. C. Woolner, and Dr. Satis Chandra Vidyabhusana be elected Vice-Presidents of the First Oriental Conference. The proposal was carried unanimously.

6. After this Mr. V. P. Vaidya, with His Excellency's permission, read out some telegrams, and letters from distinguished persons who expressed their regret at not being able to attend the Conference, but heartily wished it a success.

Lord Willingdon of Madras, First President of the Bhandarkar Institute, in his letter to the Chairman of the Reception Committee, said :—

" I am sure and I trust the Conference will be a great success. I have a natural interest in the Institute for I

opened it, and the gentleman after whom it is named will always remain to me a great personal friend and one to whom India owes much indeed in all matters of education and literary advance."

The Chief of Ichalkaranji, Vice-President of the Institute, wired saying :—

"Regret ill-health prevents me from doing my duty towards the Bhandarkar Research Institute on this memorable occasion. Please convey my apologies to His Excellency and Sir Ramkrishna Bhandarkar."

H. H. the Yuvaraja of Mysore wrote wishing the Conference a success.

Sir Asutosh Mookerjee, President of the Council of Post-Graduate Teaching, Calcutta, sent a telegram to the following effect :—

"Please convey warmest congratulations to Conference and respectful greetings to its venerable President."

The Hon. Pandit Madan Mohan Malaviya, Pro-Vice-Chancellor of the Benares University, telegraphed, regretting inability to attend and wishing the Conference every success.

Sir John Marshall, Director General of Archaeology, while regretting inability to attend the Conference, wished it every success.

The Vice-Chancellor of the Mysore University, in his letter, also regretted inability to attend but wished the Conference complete success.

Sir P. Arunachalam, Member of the Council, Columbo, Ceylon, regretted inability to attend the Conference, where he had looked forward to meeting many scholars.

Mr. A. Hydari, Secretary to the Government of His Most Exhalted Highness the Nizam in the Educational and Judicial Departments, regretted inability to attend the Conference, though he had so much wished and liked to attend it.

Sir Deva Prasad Sarvadikari of Calcutta, wished the Conference every success and prayed that it might lead to useful and tangible results.

The Vice-Chancellor of the Patna University also regretted inability to attend.

The Hon. Sir D. E. Wacha, the Hon. Rao Bahadur Sathe, among others, wished the Conference every success.

7. His Excellency then called upon Prof. V. K. Rajwade, Chairman of the Executive Board of the Bhandarkar Institute, to read out Sir Ramkrishna's Presidential Address. Prof. Rajwade rose and read as follows :—

" YOUR EXCELLENCY, LADIES AND GENTLEMEN,

I sincerely thank you for having elected me President of this Conference. My only qualification for this post is that I am the oldest of you all, and if time allows, I intend to give you an illustration of my age by mentioning the several controversies which I have carried on since I began life as a scholar. I take it that our body here is composed of two classes of learned men, those educated as Pandits of the old school and those who have been studying the literature of the country and the inscriptions and the antiquities which are found scattered in the different provinces, by the application of the critical and comparative method. As to the former class, there are at present two Sāstras mostly studied, namely Vyākaraṇa and Nyāya. In the former, Bhaṭṭoḍī's *Siddāntakaumudī* and *Manoramā* and portions of Nāgojibhaṭṭa's *Śabdenduśekhara* and his *Pari-bhāṣenduśekhara* and the *Navāhniki* and the *Āṅgādhikāra* from Patañjali's *Mahābhāṣya* are taught. My only suggestion with reference to this is, that the *Mahābhāṣya* is such an important and informing work that it should be the aim of the Vaiyākaraṇa school to read the whole of it with its pupils. I had an occasion in connection with a controversy to give the correct sense of the passage of the *Mahābhāṣya* in P. V. 3, 99 given in the footnote.* My difficulty was great espe-

*अपर्य इत्युच्यते तत्रैऽन विद्यति । शिवः स्कन्दो विद्याख इति । किं कारणम् । मौर्याहरण्याधिभिरन्वाः प्रकाशिनाः । गवेशासु न स्यात् । यास्तेनाः संग्रनि पूजार्थानाम् विद्यति ।

cially because Nāgojībhāṭṭa in his *Uddyota* on the passage interprets Mauryas as manufacturers of idols. I consulted learned grammar-pandits, but they were not able to give me the correct sense off-hand, because this portion of the *Mahābhāṣya* does not come within the range of their studies. I then wrote a Sanskrit commentary on the passage, and they saw the propriety of taking Mauryas as a race of princes. My interpretation, that the Mauryas are spoken of in the passage as having used golden images for their purpose when they were in need of gold, was accepted by Prof. Kielhorn who was opposed to me in that portion of the controversy, as he wrote to me in a private letter and did not contest my view again in the *Indian Antiquary* for 1887, in which the controversy was carried on.

The other school, that of the Nyāya, deals with what is called the Navya (or modern) Nyāya, based upon the *Tatvacintāmaṇi* composed by Gaṅgeśopādhyāya of Bengal, the many abstruse commentaries beginningning with the *Didhiti* of Raghunātha bhāṭṭa Śiromāṇi, and ending with the *Jūgadīśī* of Jagadīśa Bhāṭṭācārya and the *Gādādhari* of Gadādhara Bhāṭṭācārya, are taught and studied in this school.

The whole learning has become extremely artificial and the student of this school acquires a certain intellectual acumen, which, however, is not of much use in ordinary matters. It is very unfortunate that this modern Nyāya hould have driven out of the field the system of Logic and Didactics or Nyāya founded by Gautama and elucidated by Vātsyāyana in his *Nyāyabhāṣya*, for about the time when this *Bhāṣya* was written, the Buddhist Mahāyāna school had acquired prominence and the two systems carried on controversies which are interesting to students of the progress of thought. Vācaspati gives some valuable information about this point and I have given elsewhere a translation of his remark in the following words:—"The revered Akṣapāda having composed the Sāstra calculated to lead to eternal bliss, and an exposition of it having been given by Paksilawāmin, what is it that remains and requires that a *Vārtika* should be composed? Though the author of the *Bhāṣya* has given an exposition of the Sāstra, still

modern scholars like Diñnāga and others having enveloped it in the darkness of fallacious arguments, that exposition is not sufficient for determining the truth. Hence the author of the *Uddyota* dispels the darkness by his work the *Uddyota*, i. e., light (torch.)". On this *Uddyota* there is a commentary by Vācaspati himself, entitled *Vārtika-tātparyatikā* and on this again Udayana wrote the *Tātparyapariśuddhi*. These works represent the Brahmanic side of the argumentation with the Mahāyānists and a study of them would be both interesting and instructive. But this study has disappeared before the cumbrous subtleties of the modern Nyāya. Still, however, I hear that some of these works are read in the Mithilā country.

There are other schools also which might be styled (i) the literary, (ii) the medical and (iii) the astronomical or astrological schools. In connection with the first, Kāvyas, dramatic plays and works on Poetics such as the *Kuvalayānanda*, the *Kāryaprakāśa* and the *Rasayāngādhara* are generally taught and studied. The course of this school might be improved by including some of the works alluded to in the last two treatises. As to the other two schools I have nothing to say. I am not aware, whether in any of the indigenous establishments, there exists a Mimāṁsā school; but I think that there ought to be such a school in connection with Dharmasāstra in which the most important treatises on religious and civil law should be taught and the rules of interpretation given by the Mimāṁsakas applied for the decision of legal points. I consider it advisable that in connection with this Dharmasāstra and Mimāṁsa school the oldest treatises, the *Bhāṣya* of Śabaraswāmin and the *Vārtikas* of Kumārilabhaṭṭa should be regularly studied.

As to the other class of our body here, viz. that composed of critical scholars, the first thing we have to bear in mind is that the study of the Indian literature, inscriptions and antiquity according to the critical and comparative method of inquiry, so as to trace the history and progress of Indian thought and civilization, is primarily a European study. Our aim, therefore, should be to closely observe the manner

in which the study is carried on by European scholars and adopt such of their methods as recommend themselves to our awakened intellect. To an intelligent man this ought to be enough to qualify him for the pursuit of critical scholarship, and the Government of India seemed, at the Conference held at Simla in 1911, to favour the idea of opening Research Institutes at the Capital City and presidency-towns; but subsequent events led to the idea being set aside, and instead, the Government provisionally adopted the plan of sending qualified Indians to Europe and America to be trained under famous Western scholars. We have now among us several gentlemen, who have returned after serving out their period of apprenticeship. There are others among us, who have qualified themselves for the purpose by the method alluded to above by me.

Between the Western and Indian scholars a spirit of co-operation should prevail and not a spirit of depreciation of each other. We have but one common object, the discovery of the truth. Both, however, have prepossessions and even prejudices, and the same evidence may lead to their arriving at different conclusions. Often, however, when controversies are carried on, the truth comes out prominently, and there is a general acquiescence when it does so. To express the same idea in other words, the angle of vision, if I may use an expression that has become hackneyed, may be and is different. The Indian's tendency may be towards rejecting foreign influence on the development of his country's civilization and to claim high antiquity for some of the occurrences in its history.* On the other hand the European scholar's tendency is to trace Greek, Roman or Christian influence at work in the evolution of new points, and to modernize the Indian historical and literary events. It is on this account that there has been no consensus of opinion as to the appro-

* The notable instances of the former are afforded by the persistent efforts made by some of us to prove that the twelve signs of the Zodiac are not adopted by the Hindus from the Greeks, though names of the signs are the translations of the Greek names, and even these last are given in a verse of Varāhamihira. Garga, as quoted by the latter states, "The Yavanas are the Mlecchas among whom this Sāstra (astronomy and astrology) is well known; they even are worshipped like Rsis."

ximate period when the most ancient portion of the hymns of the *Rgveda* was composed. Some refuse to assign it a higher antiquity than 15 centuries before Christ, while others carry it far to the beginning of Kaliyuga, i. e to about 3101 B. C. A scholar may have conceived a prejudice against the Indian race and may look down upon the Vedic Rsis. Thus our critical method is unfortunately too often vitiated by extraneous influences. But this probably is due to human weakness. A critical scholar should consider his function to be just like that of a judge in a law-court; but even there human weakness operates, and renders a number of appeals necessary, so that one judge differs from another, and so does one critical scholar from another.

Now as to the subjects to which our critical studies are directed, the principal one is that of the interpretation of the Vedas. This has been the monopoly of the European scholars and we Indians have not taken any considerable part in it. But it is indispensably necessary that we should enter the field. A European scholar may give up the function of a judge which I have attributed to him, and assume that of a prosecuting counsel. A certain individual, looking to what are called the Dāna-stutis or praises of gifts, has given it as his general opinion that the old Rsis or seers had no higher aim than the materialistic one—the acquisition of wealth. Thus he bases a universal judgment on what he finds in about 15 or 16 hymns out of 1017. In the same Vaśiṣṭha Mandala in which he finds such a praise of gifts (hymn 18), there are the outpourings of a contrite heart afflicted with a deep sense of sinfulness, and humbly begging to be forgiven. But such points as this last, do not attract the attention of the prosecuting counsel. Then again the same scholar asserts that "The hymns of the *Rgveda* are for the most part composed with the technical object of some ritual and this object stands quite near to the later ritual." This is perfectly wrong. The *Rgveda* collection has been treated from the times of the *Aitareya Brähmana* down to the present day, as a storehouse of sacred texts to be uttered and used whenever any new ceremony has to be sanctified. Thus the Brähmana again and again states "that contributes to the success of the sacrificial worship, which is possessed of an

appropriate form, i. e., when the act performed is alluded to by the *Rgveda*." This rule has been followed by all writers on later ceremonies. The resemblance between the verse and the act may be simply verbal as in the prescription of ' Śukra te, etc.' (*Rgveda* VI, 58, 1.) in which there is a mention of the bright form (śukra) of Pūṣan, i. e., his form during the continuance of the day, to the invocation of Śukra or the planet Venus in the ceremony called the ' Grahama-kha.' And this adaptation of different *Rgveda* verses for the performance of the Soma services also, such as a Śastra repeated by the Hotā, i. e. a priest, and for the choice of the Anuvākyā and Yājyā verses, is apparent from the services and the verses themselves, so that there is no question that the hymns of the *Rgveda* form the storehouse for the preparation of the services required for rites that came on in later times. (See my Report for 1883—1884 pages 32 ff.). Thus it will be seen that the *Rgveda* hymns were mostly composed for purposes other than those connected with the sacrificial ritual and there are a great many hymns which are to be recited in the morning on the first day of the Soma sacrifice (*prātaranuvāka*), which are addressed to Agni, Uṣas, and the Aśvins. The commentator on the Āśv. Śr. Sūtra (IV, 15, 11) states that Uṣas has nothing to do with Soma sacrifice; still as the goddess is connected with the preceding Agni and the following Aśvins, hymns to her are intended in this list. Thus the theory that the hymns to the Vedic deities were inspired by the poetic inspiration of beauty holds its ground firmly, notwithstanding the assertions of the above mentioned prosecuting counsel of a scholar. The three deities, Agni, Uṣas and Aśvins are represented as manifesting themselves in the morning. The old Āryans were accustomed to rise very early and enjoy the beauty of the Dawn and its thickening away into brighter light. It will be seen from all this that the cult followed the composition of hymns and did not precede it in a far outweighing measure.

Then again an attempt has been made to throw discredit on the ritual prescribed in the Gṛhyasūtras, and the Śrautasūtras, by tracing them to the practices of savages like the Red Indians of America; and even the Upanayana and the marriage ceremonies of the domestic

rites and the Dikṣā ceremony are treated similarly. But the main points involved in these ceremonies are neglected. The priest in the case of Upanayana, is the father of the boy himself and not a developed form of the "medicine-man" of the barbarians. The boy is dedicated to the service of the God Savitar in the words " O God Savitar, this is thy Brahmacārin; preserve him, may he not die"; and the object of the ceremony is not to scare away the evil spirits of whom the Acārya or father is afraid. The putting on of the hide of an antelope in the Dikṣā and other ceremonies, the fasting which precedes them, and such other practices came down to the Hindus from their residence in the forest, where the antelope was a familiar figure, and from the necessity of preserving the body in an unencumbered condition before the performance of any rite. This is done even at the present day when the Brahmins have to perform holy functions such as meditation, celebration of the birth of such a god as Kṛṣṇa, the performance of the Śrāddha ceremony, etc., and these practices are certainly by no means to be traced to the weird performances of the medicine-man of the savages. The question of magic rites is an independent one and should not be confounded with the cults prescribed in the Sūtras. As shown by an inscription, regarding a treaty between the king of the Hittites and the king of Mitani, found in Asia Minor, the Aryans who ultimately migrated to India were the neighbours of the Assyrians or *Asuryas* and must have learnt from their connection with these and the Babylonians the art of magic, and the subsequent composition of the *Atharva-veda* must have been greatly influenced by this circumstance. Therefore, whatever weird and magical practices are to be found in Hinduism of the day, are not unlikely to be traced to this source.

Notwithstanding such aberrations of scholars as we have noticed, European scholarship deserves our highest respect, and the erring individuals are corrected by other scholars and on the whole no great harm is done. Still, we Indian scholars ought to devote ourselves strenuously to Vedic study. Yāska tells us that a science should not be taught or communicated to a fault-finding or prejudiced man and the mood to be observed in studying a subject is, according

to the *Bhagavadgītā*, that of Śraddhā, i. e., a disposition to receive whatever strikes as reasonable or an attitude of open-mindedness. We are likely to be more actuated by this spirit in the study of our Vedas than any foreign nation. Still those of us who have not become critical scholars by closely observing the method of European scholars, or serving out a period of apprenticeship to them, exhibit, a number of faults and weaknesses which entirely vitiate their reasoning. A young man, the editor of a good many Sanskrit works, asks me with a derisive smile what the necessity was of naming a MS., showing the country it came from, and the age in which it was written, when the mere fact of its presenting a varied reading is enough for all purposes. He did not know that when a judge noted down the age of a witness appearing before him, the name of the caste or the community or country to which he belonged, he got information from him which had a value in the estimate of the evidence. Similarly another young man, not fully acquainted with the critical method, said that Nāmadeva and Jñānadeva were contemporaries but that the difference between their languages was due to the mistakes of successive scribes. He thus believed that the scribes could reconstitute the grammar and lexicon of a language, forgetting to ask himself why the marvels effected by the scribes in the case of Nāmadeva should not have been effected by them in the case of Jñānadeva himself, whose language they had not altered. I do not give these as solitary instances but as due to the working of a spirit which has rendered Jñāneśwara, the author of *Jñāneśwari*, which does not contain the name of God Viṭhoba at all and whose Marathi is very archaic, to be the same individual as the author of the *Haripāṭha*, whose *abhaṅgas* teem with allusions to Viṭhobā and Rakhu-māī and whose language considerably approaches modern Marathi. The Marathi literature which has come down to us is full of such strange theories. It is a very disagreeable matter to dwell at this length on the faults of our Indian scholars, but it is an allegiance which I owe to truth.

The study of Vedantism among European scholars is dominated by the views of Prof. Deussen, who is a follower of Śaṅkarācārya's system of world-illusion and the spiritual

monism, but it is wonderful that nobody should have penetrated below the surface of the question and seen that it is not one system that the Upaniṣads teach, but several, inconsistent with each other and each supported by an Upaniṣad text (see the Introductory chapter of my *Vaiṣṇavism and Śaivism* etc.). I have already alluded, in connection with the modern system of Nyāya which forms the stock-learning of the existing Nyāya school, to the growth of a controversy between the Brahmins and the Mahāyāna Buddhists, the Brahmanic side of which is represented by Vātsyāyana, Bharadvāja, etc., and the Buddhistic side by Diṅnāga and others. This controversy might well form the subject of close study among modern critical scholars and perhaps even a clue to Saṅkarācārya's theory of world-illusion might be found in the Nihilism of the Buddhist Mahāyāna school.

Another very important branch of our study is that of inscriptions, which are scattered over the whole country and are engraved on stones or on copper-plates. These last are mostly deeds of gifts of villages or of the revenues of villages to Brahmins or for the support of temples and other religious establishments. These deeds contain the pedigrees of the donating monarch, with notices of important points in the careers of his ancestors and in that of the reigning monarch himself. These notices have a historical value which must be judged of by our usual canons of criticism. We are thus enabled to reconstitute sketches of dynasties and of the principal points in the history of the provinces concerned. The inscriptions on stones contain records of specific events which enable us to find a clue to the progress of the occurrences described therein. We should be groping in the dark if there were no chronological light thrown on the events recorded in our reconstituted sketches. Such chronology we have for post-Christian occurrences. We have an era which originally dated from the coronation of a Śaka king and was called also the Era of Śaka kings. By a mistake in identification, such as those we have noticed in our vernacular literature, the name of the Śaka king was supplanted and that of the Śālivāhana or Sātavāhana Dynasty which followed those kings was substituted in its place. In the usual practice, the two names are put together and the era is called "Śālivāhana

Śaka" which can denote the names borne by two dynasties. There is another era to which the name of Vikramāditya is attached. There is a third bearing the name of the Gupta princes, which has been in use for some centuries. Its initial date, as compared with the Śaka era, was given by the Arabic writer Alberuni as 242 Śaka, but unfortunately that writer stated it to be the era of the extinction of the Gupta dynasty. It was however found to have been used by the Gupta princes themselves and hence scholars and antiquarians not only disbelieved this fact, but threw discredit on Alberuni's statement of the initial date of Gupta era. Long and pungent controversies followed on this matter, new initial dates for the Gupta era being proposed. I also took part in the controversy and my conclusion, recorded at the end of a note in the Appendix A to the second edition of my *Early History of the Deccan*, is as follows :—" Thus, then, the evidence in favour of Alberuni's initial date for the Gupta era appears to me to be simply overwhelming." Subsequently in an article in the *Indian Antiquary*, Vol. XLII pp. 199 etc., I had to consider the relation between the dates found in Mandsor inscriptions. These dates are given as the years that had elapsed after the constitution of the Mālavas as a Gana or a political unit. This Mālavagana came afterwards to be identified with the name of Vikramāditya, just as the Śaka era came to be associated with the name of Śālivāhana or Sātavāhana. The only Vikramāditya that became famous, after the institution of the era of the political unity of the Mālavas, was Candragupta III of the imperial Gupta dynasty, who came to the throne about A. D. 400, conquered Ujjain, made it one of his capital cities, drove out the Śakas and was consequently called Śakāri. These two eras then, that of the Śaka and that of Vikrama have become our guides in determining the chronology of the post-Christian occurrences.

Another source of information is that which is afforded by comparison of the statements by foreign writers with those found in the indigenous records. Thus Megasthenes is mentioned by Greek writers as an ambassador sent by Selukos to the court of Sandracotta. Sandracotta is the same as Candagutta, the popular pronunciation of the Sansk.,

rit Candragupta. Hence we gather the contemporaneity of Candragupta, the Maurya, with Selukos.

Similarly, in the inscriptions of Aśoka "Antiyoko nāma Yona Rāja" is mentioned as a friend of Aśoka, as also four others associated with Antiochus. Thus the age of Candragupta is about 325-315 B. C. and of Aśoka's coronation is about 269 B. C. Similarly we gather chronological information through the comparison of Chinese literature with the Indian. The *Kārikās* of Īśvarakṛṣṇa on Sāṅkhya philosophy and its commentary, for instance, was translated into Chinese between the years 557 A. D. and 569 A. D. Pulakesin came to the throne in 610 A. D. and was the only southern monarch, to conquer whom the efforts of Śilāditya or Harsavardhana proved fruitless; he remained an independent sovereign. These facts are gathered from the writings of Hiuen Tsang and our copper-plate inscriptions, which tally with each other.

In this field of the study of inscriptions, the most confusing points are those connected with the dynasty of Kaniska. It is a great desideratum that all inscriptions and other scraps of information connected with the family, should be brought together and attempts should be made to fix their dates. No such comprehensive attempt has, I believe, been yet made, and it is now left to those of us who have paid special attention to this branch of our study, to make it. The *Epigraphia Indica* has been doing good service by the discovery and publication of new inscriptions and the whole department of Archaeology is devoted to making excavations and bringing to light new sources of information. Such a source is that of a Greek of the name Heliodora, having been discovered by means of an inscription at Besnagar, as a Bhāgavata and a worshipper of Vāsudeva, the rise of this sect being shown as early as the 2nd Century before the Christian era (See my *Vaiṣṇavism* etc. pp. 3-4). The field of research in this connection is extensive; to cultivate it and to bring out fruitful results, it is necessary that more of us should devote themselves to the subject.

During the period that I have been working in this line, I have had to take part in several controversies. One of

these I have already mentioned, and that is about the Gupta era. I now close the address by briefly setting forth the points involved in one that is still agitating us, and that is about the genuineness of the *Arthaśāstra* attributed to Kauṭilya, which has been recently discovered. Prof. Jacobi believes that it is the production of Cāṇakya or Viṣnugupta, who overthrew the Nandas and raised Candragupta, the Maurya, to the throne. Prof. Hillebrandt, on the other hand, attributes the authorship to a member of the school of Kauṭilya and not to the great Cāṇakya himself. The point I wish to make out is that it was not written so early as in the times of Candragupta, the Maurya, but later. The earliest notice of Kauṭilya's work is that contained in the *Kāmasūtra* of Vātsyāyana, in which occur a number of passages which are the same as in Kauṭilya. It is then mentioned by Kāmandaka in the third century, by Dandin in the sixth century and by Bāna in the seventh century A. D. But its existence is noticed by no writer earlier than Vātsyāyana's *Kāmasūtra*. Patañjali, the author of *Mahābhāṣya*, throws side-glances on the things existing in or about his time. He mentions the Candragupta-Sabhā, the greed of the Mauryas for gold and their selling golden idols, and the beating and the sounding of the Mṛdaṅga, Śaṅkha and Pañava in the temples of Kubera, Rāma and Keśava, the existence of a sect of Sivabhāgavatas holding an iron lance in their hands. In the extent of the literature written in the Sanskrit language, he enumerates a number of Vedic words with the Āngas, Vākovākyā (which is defined by Śaṅkarācārya and Raṅga Rāmānuja as Tarkasāstra), Itihāsa, Purāṇa and Vaidyaka, but there is no room anywhere here for Kauṭilya or for his work the *Arthaśāstra*. Now as to the arguments that may be taken as pointing to an earlier date for the *Arthaśāstra*, the following may be mentioned :—

(i) Ānvikṣīki as defined by Kauṭilya consists of Sāṅkhya, Yoga, and Lokāyata. This is the popular philosophy of the time of the Śvetāśvataraṇopaniṣad and the Bhagavadgītā, while the Ānvikṣīki of Vātsyāyana's Nyāyabhbāṣya is the system of Gotama himself. They should rather show a later date for Nyāya Philosophy than an earlier one for the *Arthaśāstra*.

(ii) Then again Kauṭilya speaks of his writing a *Bhāṣya* on his own *Sūtra* and of *apadeśa* i. e., the statement of the views of others and lastly of the *Siddhāntin*. Now in the chapter on *Tantrayuktis*, he mentions this last circumstance as the *yukti* or the device for the exposition of the system, so that it should not be necessarily understood that the views of the *Siddhāntin* or the last writer are given by himself. Similarly in the *Vedāntasūtra*, when the views of other authors are first given, and that of *Bādarāyaṇa* at the end, it ought by no means to be understood that *Bādarāyaṇa* himself was the writer. Hence the occurrence of the name of Kauṭilya should not be taken as indicating his authorship of the whole statement.

Now as to the date of the *Arthaśāstra* itself, it depends on that of Vātsyāyana's *Kāmasūtra*. Vātsyāyana lived after Kuntala Śātakarnī Śātavāhana, whom he mentions as having killed his queen Malayavati in an amorous sport, by a pair of scissors. Kuntala must have flourished in the middle of the first century B. C. and consequently Vātsyāyana lived about a hundred years afterwards, so that he may be placed in the first century of the Christian era. Since these calculations are rough, we may assign him to the first or the second century A. D. This is the earliest date to which we can refer Kauṭilya. The last śloka of the chapter on *Tantrayukti* is:—

येन शास्त्रं च शास्त्रं च नन्दगाजगता च भूः ।
अमर्येणोऽप्युतान्याशु तेन शास्त्रमिदं कृतम् ॥

the sense of which is “This Śāstra was composed by him who, unable to bear it, extricated this Śāstra, the insignia of authority and the country under the sway of Nandarāja.” The second word Śāstra, which occurs in the last line, refers to the book actually written, while the word occurring in the first line alludes to the conception and development of the idea of the Śāstra. This conception and the development were attributed to Viṣugupta by tradition, as well as the removal of the insignia of authority and overthrow of the sway of the Nandas. The *Arthaśāstra* therefore was attributed to Kauṭilya, because traditionally he was the conceiver of it.

The study of the Avesta or the sacred literature of the Parsis has been associated with the study of our Sanskrit literature. There is a close resemblance between the languages of this literature and of the Vedic Sanskrit, so much so that, with but the slightest changes, certain passages from the one can be turned into the other. But a critical study of the Parsi Scriptures began with a French scholar named Anquetil Duperron, who came to this Presidency in the 18th century, discovered that literature, and was struck with its importance. Critical studies were undertaken in Europe and several scholars such as Martin Haug, etc., devoted their lives to it. In India critical scholarship of the European type was introduced by the late Mr. K. R. Kama, in whose memory there exists an Institute erected by his friend Mr. Sukhadwala. Avestic studies were subsequently conducted by a number of Parsi scholars, prominent among whom is Dr. Jivanji Jamshetji Modi. It is very desirable that intelligent Parsis in greater numbers should enter into the field and conduct researches into their ancient religion and customs.

The Arabic and Persian literature also should prove a fruitful field of study. Early Arabic and Persian writers, like Alberuni, have much to say about the contemporary history, religions, customs and manners of India. Their study is, therefore, bound to prove of great use. Again our modern vernaculars, especially the Aryan ones, have borrowed much from these sources and many points connected with their etymology cannot be satisfactorily solved, unless we seek help from the Persian and Arabic languages. I am glad to note that the attention of young scholars is drawn in this direction also. In this connection I have to note with satisfaction the useful work that the Hyderabad Research Society is carrying on under the patronage of His Most Exalted Highness the Nizam's Government. I do hope that scholars will take greater interest in these subjects, as also in the Chinese and other literatures, without which Oriental studies are bound to remain incomplete and one-sided.

Now, gentlemen, I close. I am very glad to observe that critical scholarship has, notwithstanding the defects alluded

to by me, been flourishing among us. Good books and lectures have recently been published, especially in connection with the Calcutta University. Our own University has not extended that support to original research that we might expect from it. Still, I close the active years of my life with an assured belief that sound critical scholarship has grown up among us, and that it will maintain its own against aspersions and attacks. I am very glad to observe that a large number of papers will be read at the session we begin to-day, a good many of which must be important, so that in every way we have reasons to congratulate ourselves; and this our Conference, will, I trust, be a landmark in the progress of our studies."

8. His Excellency then called upon Dr. Ganganath Jha of the Sanskrit College, Benares, to move that a Committee consisting of the following persons be appointed to consider the suggestions received from various scholars and to frame a constitution for the Conference and to report at the last sitting of the Conference.

Members of the Committee:—1. Principal A. C. Woolner, 2. Dr. Satis Chandra Vidyabhusana, 3. Mr. V. P. Vaidya, 4 Prof. S. Kuppuswami Shastri, 5. Dr. T. K. Laddu, 6. Mr. J. S. Kudalkar, 7. Prof. M. Hiriyanna, 8. Prof. Khuda Bukhsh, 9. Dr. S. K. Belvalkar, and 10, 11, 12 the three Secretaries of the Conference viz. Dr. P. D. Gune, Mr. N. B. Utgikar and Prof. R. D. Karmarkar.

Dr. Jha, while proposing the motion committed to his care, said that the Secretaries had received letters from various scholars on a variety of subjects like the preservation of Sanskrit MSS., a Central All-India Research Institute, undertaking different works that could not be carried out by individual effort, constitution of the Conference, encouragement of indigenous Oriental learning etc. It was impossible to discuss them in a large assembly like the Conference and arrive at any definite conclusion. Such a work could only be done by a small representative committee. It was therefore that he had proposed the Committee.

The proposal was duly seconded by Prof. A. B. Dhruva of Ahmedabad and was accepted by the Conference.

9. His Excellency, thereafter, announced that a gentleman, who wished to remain anonymous, had offered a prize

of Rs. 2000 for the best historical review of Indian commerce from the earliest times to the present day.

The conditions of the prize and other details were left to be decided later in consultation with the donor.

10. Dr. H. H. Mann, Chairman of the Council of the Bhandarkar Institute, then announced, with the permission of His Excellency, that the Institute would be At Home to the delegates of the Conference on Friday the 7th instant at 5 P. M.

11. Shrimant Balasaheb Pant Pratinidhi, Chief of Aundh, then rose to propose a vote of thanks to His Excellency, and said :—

“ YOUR EXCELLENCY,

We are all thankful to you for having specially come down to Poona for this occasion. We knew of the keen interest you took in Oriental learning and Oriental affairs in general, and we trusted that you would grace the occasion by your presence, as you have done, even at the cost of some personal inconvenience.”

The Chief concluded by making a humorous allusion to His Excellency’s love of Technical and Commercial education, saying how oriental research also helped in it.

Shrimant Babasaheb Pant Sachiv, Yuvaraj of Bhor, in seconding the proposal said :—

“LADIES AND GENTLEMEN,

I want to prominently point out the genuine interest and keen enthusiasm shown by His Excellency in ancient Oriental literature and other educational activities. My remarks would be still clearer when we remember, gentlemen, that in spite of the multifarious activities of greater importance engaging the attention of His Excellency and in spite of his being in Kashmir very lately, he could find time to specially come down here to open this grand and unique Conference—the first of its kind in the educational history of India. I hope you will carry the proposal with acclamations.”

His Excellency then, in words that befitted the occasion, thanked the Chief of Aundh and the members of the



Barrister V. P. Vaidya, B. A. J. P., Chairman
of the Reception Committee.



His Excellency Sir George Lloyd leaving the
Exhibition Hall.

Working Committee in return, and was glad that the opening session of the First Oriental Conference had been so eminently successful.

After the distribution of flowers and Pan Supari by 1 P. M., His Excellency, accompanied by the Chiefs of Aundh, Sangli, Miraj and the Chairman of the Reception Committee, proceeded to the Tata Hall of the Institute, where an exhibition of old and rare manuscripts, illuminated scrolls of the *Mahābhārata* and the *Q'ran*, old and valuable coins, paintings and other things of antiquarian interest, was beautifully arranged in show-cases made specially for the purpose. Prof. D. R. Bhandarkar and Dr. S. K. Belvalkar helped the Chairman of the Reception Committee in showing His Excellency and the guests round the Exhibition and explaining certain exhibits. His Excellency and the other distinguished visitors expressed their great pleasure at what they saw.

II.—SECOND SITTING ON THE SAME DAY.

2-30 P. M. to 5-30 P. M.

12. The Conference resumed its sitting in the afternoon. The attendance, including delegates, was about five hundred. Principal A. C. Woolner, one of the Vice-Presidents took the chair.

Dr. T. K. Laddu then proposed and Barrister V. P. Vaidya seconded that, as it had been decided to read some twenty papers only in the general sitting, and as the remaining bulk of papers (about 100) had to be read in different sectional meetings, the following gentlemen be elected chairmen for the subjects indicated against their names.

Dr. R. Zimmermann of the St. Xavier's College, Bombay : Veda.

Dr. J. J. Modi of Bōmbay : Avesta.

Prof. S. Kuppuswami Shastri of the Presidency College, Madras : Classical Literature and modern Vernaculars.

Prof. S. Khuda Bukhsh of the University of Calcutta : Persian and Arabic.

- G. R. Kaye, Esq. of Simla : Technical Sciences.
 Prof. D. R. Bhandarkar of the University of Calcutta : Archaeology.
 Dr. J. J. Modi of Bombay : Ethnology and Folklore.
 Dr. Ganganath Jha of the Sanskrit College, Benares : Philosophy.
 Dr. Satis Chandra Vidyabhusana of the University o Calcutta : Pali and Buddhism.
 Prof. S. Krishnaswami Aiyangar of the University of Madras : Ancient History.
 Prof. V. K. Rajwade of Poona : Philology and Prakrits.
 Mahāmahopādhyāya Laxmanshastri Dravid, of the Sanskrit College, Calcutta : Papers in Sanskrit written by learned Pandits.

The proposition was carried unanimously.

13. The Vice-President then requested the representatives of the different learned societies to read their reports and called upon Dr. J. J. Modi to read the *Report of the Bombay Branch of the Royal Asiatic Society*, which he did in extracts.

(1). The full text of the report is as follows :—

"The Bombay Branch of the Royal Asiatic Society was founded in November 1804. So, it completes this month 115 years of its existence. Sir James Mackintosh, who was the Record of Bombay, was the founder of the Society. He called a meeting of some well-known European citizens of Bombay at his residence at Parel on 26th November 1804. The Hon'ble Jonathan Duncan, the then Governor of Bombay, was one of those who were present. He knew Persian well. As a Parsee I specially mention his name, because his name has been somewhat associated with that of a Parsee Dastur of the time. The father of Dastur Moola Feroze had brought from Persia the Desatir to which attention of Persian scholars was drawn by Sir William Jones, "the Columbus of the new Old World of Sanskrit and Persian Literature." Mr. Duncan, who had come into contact with Moola Feroze in the matter of his Persian studies "considered himself as supremely fortunate in having at

length made the longed for discovery " of the Desatir in the hands of his friend, the Dastur. He requested the Dastur " to show it to no person whatever, and having undertaken a translation of it, continued to prosecute his work, at intervals, for several years, intending on his return to England to present it to His Majesty as the most valuable tribute which he could bring from the East." But alas ! before he could do that, he died in 1811 and lies buried in St. Thomas' Cathedral Bombay.

The gentlemen present at the above meeting formed themselves into a Society under the name of " The Library Society of Bombay." Sir James Mackintosh was appointed its first President, Mr. William Erskine, a known Orientalist of the time, was appointed its first Secretary and Mr. (afterwards Sir) Charles Forbes, whose name latterly became very popular among the people of the city as their friend, was appointed its first Treasurer. Among the members of the Committee we find one named as " Don Pedro de Alcantara, Bishop of Antiphile and apostolical Vicar in the dominions of the Great Mogul," which reminds us of the relations which existed between the Catholic Fathers and the Moghul Court from the times of King Akbar.

It was resolved at the meeting that monthly meetings of the Society may be held at 4 O'clock on the last Monday of each month. The present Government House at Malabar Hill was then, as said by Anquetil Du Perron in his book of the Zend Avesta, a rendezvous, where the elite of Bombay met for their tea after dinner, which then took the place of our present tiffin or lunch. The monthly meetings of the Society remind us of those early days, when, looking to the population, the times, circumstances, and the state of education, there was more of literary activity in Bombay than at present, when the large number of Gymkhana's and Clubs draw away people, and the papers, which are few and far between, are read before scanty audiences.

Calcutta was the first to found a literary society of this kind. Sir William Jones, who, as a young Oxonian, was wounded to the quick by the scornful tone adopted by Anquetil Du Perron towards Hyde and others in his book on the Zend

Avesta, had attacked both the French scholar and the Zend Avesta. Sir James Mackintosh in his first discourse on the foundation day, referred to the foundation of the Bengal Asiatic Society at the able hands of Sir William Jones and discussed at some length the object of the Society, viz. investigations into literary and scientific matters pertaining to the East generally, and to India in particular.

It was in 1827 that it was proposed that the Society may be united with the Royal Asiatic Society as its branch. The proposal was accepted, and since that year, the Society gave up its former name and assumed that of the "Bombay Branch of the Royal Asiatic Society." Sir John Malcolm, the then Governor of Bombay, and the then President of the Society, spoke at some length at the meeting called for the purpose of the union, on the subject of Asiatic learning. Though the Bombay Society was thus united, in the matter of its administration and funds, it was and is independent.

In the early years of the Society, its membership was confined only to Europeans and its doors were firmly closed, though often knocked at, against the natives of this country. The reason for this exclusion was that they were not sufficiently advanced in education to take part in such literary societies. But when the Hon'ble Mountstuart Elphinstone, during his governorship of Bombay, helped the cause of education and when education thus began to spread, the cause of exclusion began to disappear. Elphinstone was also President of the Society. In a letter dated 5th December 1827, written to Elphinstone by Sir John Malcolm, another Persian scholar, who succeeded him both in the gubernatorial Chair of Bombay and in the Presidential Chair of the Society, the writer expressed indirectly some hopes of some "happy association between them (the educated natives of the country) and their European fellow-subjects, which will essentially aid and facilitate the future labours and researches of the Literary Society of Bombay."

It was a Parsi, the late Mr. Manockjee Cersetjee, a pioneer in various paths of advancement in the City of Bombay, who first knocked at the doors of the Society to be admitted, and, though defeated, knocked again and again and

was at last admitted. When he was first proposed and supported in 1833 by Mr. R. C. Money, Secretary to the Bombay Government, and Colonel Vans Kenandy, the then President of the Society, his nomination was opposed by the Rev. Dr. Wilson "on the ground that it would give a preference over their countrymen of the highest literary attainments to those whose only literature was the acquaintance with the English language".* Mr. Manockjee Cursetjee was, in the election by ballot, rejected by 14 black balls. Then Mr. Manockjee got himself first admitted into the parent Society—the Royal Asiatic Society, and then sought admission here in the Branch Society. As the parent Society had admitted him, he had to be admitted here also and so the doors were opened to him on 29th January 1840. The doors of Free-Masonry, which also were closed here against the natives of the country, were similarly knocked at by Mr. Manockji Cursetji and they also were opened at last to him. In 1864, the Hon'ble Mr. Frere, the then President of the Society, thus referred to the subject of this election in his presidential address :—

" Those of you, who have been as long connected with the Society as I have been, will recollect the great opposition which was made in the year 1833 to the admission of a native as a member of the Society. It is a good rule of our Society, that no record is ever kept of those who have been proposed as members and black-balled, but it is now a matter of history, that notwithstanding the exertions made by some of the most popular and influential of our members, they signally failed in getting this native admitted into the Society as a member, and it was not until Manockjee Cursetjee had been elected a member of the Royal Asiatic Society, and his friends claimed as a right for him to be admitted a member of this Branch Society, that the door was opened.† All honour be to him for his characteristic perseverance and indomitable courage on this as on all occasions. After he was admitted, the Hon'ble Juggonath Sunkersett, Sir Jamsetjee Jeejeebhoy, and others soon followed ; and good reason we have not only to be proud of our

* Historical sketch of the Society by Mr. G. K. Jivarekar.

† In January 1840.

native members, but to be grateful to them for the splendid additions they have made to our Library and Museum. To whom are we so much indebted for presents of books and a large and costly collection of coins as to Cowasji Jehangir Readymoney, Esq., and the Hon'ble Juggonnath Sunkersett ? and have not Bal Gangadhar Shastree, Dr. Bhau Daji and Dhunjeebhoy Framjee been large and useful contributors to our journal ? Gifts and contributions, such as these, may well make the Society proud and grateful to our native members."

Later on, the Hon'ble Mr. Frere, when an address was presented to him, said : "The Society now really is Asiatic, which it hardly was before, but which I trust it will ever continue to be."

In 1873, the Bombay Geographical Society, which was founded in 1831 as a branch of the Royal Geographical Society, was amalgamated with this Society and it ceased to exist.

The Transactions of the Society during its early years were published in three Volumes in 1819. These three Volumes were republished in 1877 under the editorship of the late Hon'ble Rao Saheb Vishvanath Narayan Mandlik. After its amalgamation with the Royal Asiatic Society in England, all the papers read before it were sent to England to be published in the Journal of the parent Society. In 1841, it was again resolved, that the Society may publish its transactions here in a Journal to be issued quarterly. But the Journal now is not issued quarterly. It is published irregularly as papers come in. By this time the Society has published in all 24 Volumes.

It is very gratifying to note that while at one time in the early years even after the admission of Indian members, the Journal had few papers—few and far between,—from the pen of Indian members, now they contain mostly papers from their pens."

(2) Dr. J. J. Modi, then as Secretary read extracts from the *Report of the Anthropological Society* which he represented. The full report runs as follows :—

The Anthropological Society of Bombay was founded at a meeting held in the rooms of the Natural History Society of Boinbay, on 7th April 1886, under the Presidentship of the late Mr. Edward Tyrrel Leith, LL. M., who was i's founder. Of the 73 members, announced at the meeting as "Original Members of the Society" none are now living as its members.

We hold regularly (except in May and December) our monthly meetings on the last Wednesdays of every month, when papers are read and discussed. These papers are then published in our Journal, of which we have in all published X volumes of 8 numbers each and 4 numbers of Vol. XI.

The Silver Jubilee Memorial Number of the Journal of the Society, published in 1911, contains an exhaustive index of the subjects treated in the papers read before the Society upto that time.

The society has an official Englishman as president, but the writers are nearly all Indians, well-educated men who ought to be able to get at the correct facts, which they certainly can present in good style. The Silver Jubilee Number contains special contributions. The history of the society shows good work done for twenty-five years. The index of the papers read during the period and of the anthropological scraps ranges over the whole field of anthropology, though from a perusal of the titles the merits of the papers cannot be gauged. The specimens in this number are varied and excellent, whether they deal with legal matters, ethnography, ancient engineering, superstitions, Hindu rites and marriage, or Totem theories. In such societies all classes of the community can meet freely, and interchange ideas to their mutual advantage.

As stated by the founder at the first meeting, the Society was "not intended to be merely a local Society but one that should embrace the whole of the Indian Empire." He further said that there was probably no country in the world which offered so interesting a field for anthropogical research.

The following were suggested by him as the principal subjects worth inquiring into by the Society.

I. Systematization of the knowledge at present existing with regard to the races of India.

II. Comparative Religion ; India being the home of Vedism and Buddhism in the past, and of Hinduism, Jainism, Mazdaism and Islamism in the present, offered most valuable materials for inquiry by the student of Comparative Religion.

III. Comparative Law.

IV. The institutions connected with the genesis and development of man.

V. Anatomical relations.

As to the first subject, some of the papers of the Society have been written on the various tribes or classes of India. I had the pleasure of contributing seven papers on this subject.

As to the second main division suggested by the founder, we find, that he named the following subjects as worthy of inquiry among many others :—

1. The daily, annual and other ceremonies of the Brahmin Caste; 2. The Religion of the pre-Aryan races of India, at the bottom of whose list stood "the black-skinned jungle tribes of the hills, who were hardly higher in culture than the aborigines of Australia.....The mother-worship practised in every Hindu village, represented the primitive religion of India. Closely allied to it, was the secret Śākta Sect. Both systems were deserving of the closest investigation"; 3. Sorcery, witchcraft and necromancy among the lower castes of India; 4. Religious ecstasy or frenzy, under the influence of which a person was possessed by a deity, demon or departed spirit; 5. The constitution and practices of the religious orders, such as Gosavis and Bairagis; 6. The sacred shrines, idols and places of pilgrimage; 7. The primitive custom of human sacrifice.

As to the third main heading or division, viz., Comparative Law, the following were suggested as worth inquiring :—

1. Mother-law or the system of descent through the female line; 2. Caste rules; 3. Oaths; 4. Ordeals.

As to the fourth main head, viz., the institutions connected with the genesis and development of man, the President specially referred to the following :—

1 The rites of the Wāma-mārga in Śakti-worship; 2. The dedication of dancing girls to the service of the temple.

Coming to the last head, viz., Anatomical relations, we find the following suggested for further inquiry :—

1. Collection of statistics regarding the capacity of the human skull and other measurements of the human frame among the various castes and races ~~of~~ the Indian Empire; 2. The physiological and psychological characteristics of the races.

The President-founder had in his inaugural address wished that the motto of the Society should be "Surtout de Zeie" The Society has kept up the same zele upto now, though not to the same extent as that which prevailed in the first few years of its existence. I repeat here what I said in my Presidential address as the President of the Society for 1914. "As far as the work of our liberal societies, such as the Bombay Branch of the Royal Asiatic Society, the Anthropological Society and others is concerned, there is a fall in the literary activity of Bombay."

What is the cause? Is it that the educated classes are so much over-worked as not to be able to attend one or two monthly meetings of these Societies? Perhaps that is so, to a small extent. But that does not seem to be the only cause. Perhaps it is the number of Gymkhana and Clubs that have arisen of recent years among us, that is the cause of this fall in the literary activity of the learned Societies. If so, we may say to the seekers of pleasure, that our Society also offers a kind of pleasure. It is intellectual pleasure.'

The first office-bearers of our Society were the following :—

President, Mr. Tyrrel Leith; Vice-Presidents, the Hon'ble Mr. Justice Scott and the Hon'ble Rao Saheb Vishvanath Narayan Mandlik; Honorary Secretaries, Dr. D. Mac-Donald, Mr. Y. V. Athalye and Prof. O. S. Pedraza; Curator

of the Museum, Mr. H. M. Phipson; Librarian, Mr. (now Sir) Basil Scott.

The post of President was held from time to time by distinguished gentlemen, the Presidential addresses of many of whom as given in the Society's Journal, will give one an idea of the great scope of work before one interested in the anthropological subjects.

(3) Dr. J. J. Modi further read the *Report of the Sarthoshti Din ni Khol Karanari Mandali* thus :—

"The late Mr. Khurshedji Rustomji Cama in whose-honour the K. R. Cama oriental Institute has been lately founded in Bombay, was the founder of the Society. He had gone to England in 1855 for purposes of commerce. On his way back to Bombay in 1859, he had stayed for some time at Paris and Erlangen and studied Avesta and other cognate languages under Professors Mohl, Oppert and Spiegel. He also studied there French and German. Two years after his return to Bombay, in 1861, he opened a private class at his residence in the Fort to teach young Parsee priests the Avesta and Pahlavi languages according to the Western Scientific method. After thus creating and cultivating a taste for the study of Iranian languages according to the systematic Western method, he saw the necessity of founding a Society, where scholars and students both of the old traditional school and the new scientific school, may meet, and discuss and make researches into, various subjects of Zoroastrian religion. So, in March 1864, he sent round a circular among the local Parsee Dasturs or the Head Priests, who knew Iranian languages, inviting them to meet on 30th March at the Moola Feroze Library, which is now located in the above-mentioned K. R. Cama Oriental Institute, to consider the question of founding such a Society. In that meeting, a Society was founded under the name "Jarthoshti Din ni Khol Karnari Mandali", i. e. the Society for making researches in Zoroastrian religion. It was resolved, that monthly meetings may be held on the 29th day of every Parsee month. It is not known why of all the days in the month, this particular day was chosen, but perhaps it was because the day bore the name of Marespand

(Mathra Spenta) i. e. the Holy Word, the Holy Mathra (મણ્ઠા) and so a very proper day for making inquiries in the matter of religious scriptures.

The annual subscription was fixed at Rs. 12. Now it is Rs. 3. The Dasturs or the Head Priests Dasturs Peshotan Byramji, Erachjee Sorabji and Jamaspji Minoncherji were the Presidents of the Society for different periods till 1898. Then Mr. K. R. Cama who was very properly called "a laique Dastur" by the late Prof. Darmesteter, was the President till the end of his life in 1909. He was succeeded by Shams-ul-Ulama Dastur Darabji for one year. Mr. M. P. Khareghat, I. C. S., (Retd.), now holds the Chair. Mr. Cama, the founder, was the fourth President and he came to the Chair about 34 years after its foundation. This may look rather strange. But the fact was that from the very beginning he wished to associate the clergy, and especially the Dasturs, the leaders of the clergy in the work of the Society and so he always gave them precedence. Even when the President-Dasturs were absent, he did not take the chair, but proposed his pupil-priests to it, thus showing that from the very beginning he intended the Society to be a field of literary activity for the clergy.

The Society has at times asked for competitive Prize Essays. The first of the kind was in the very first year after its foundation. The late Dr. Martin Haug, Professor of Sanskrit at the Deccan College, who was also versed in Iranian languages, had, at the request of Mr. Cama, delivered a public lecture on "Zoroastrian Religions" on 8th October 1864, in a bungalow on the Gowalia Tank Road at Bombay. The admission to the lecture was by tickets of Rs. 5 each. The sum realized, about Rs. 1,100 was intended to be given as a purse to Dr. Haug. But the learned lecturer desired that it may be utilized as prize-money for some work on an Iranian subject. So Mr. Cama offered the sum to this Society for asking prize essays.

The Society added Rs. 100/- from its own fund and asked for two Competitive prize essays, one of Rs. 200/- for the text, translation and glossary of the Pahlavi Dand-nameh Ādarbād Marespānd and another of Rs. 1,000/- for the

text, translation and glossary of the Pahlavi Dadistan-i-Dini. Both the prizes were won by the late Ervad Shariarji Dadabhai Bharucha, for some time a pupil of Sir Ramkrishna G. Bhandarkar and a quiet unassuming scholar of the first rank among the Parsees, who, besides the Iranian languages, knew Sanskrit as well, and who later on, was, at the request of the Trustees of the Parsee Punchayat, the Editor of the Collected Sankrit Writings of the Parsees. The second prize was won by him with a collaborator, the late Ervad Tehemurasp Dinshaw Anklesaria, another learned scholar, who also knew Sanskrit. Another Prize Essay asked by the Society was that of the Gujarati Translation of the Vendidad. The prize money Rs. 600/- subsequently increased to Rs. 1,000/- was kindly given by Mr. Cama himself and the late Ervad Kavasji Edulji Kanga was the winner. The Gujarati Translations of all the parts of the Avesta by this learned scholar are deservedly held upto now to be standard translations by the Parsee Community. The translation into Gujarati with proper comments of Sir Oliver Lodge's *Substance of Faith* was the next prize Essay asked by the Society at the instance of Mr. Cama. I had the pleasure of suggesting the subject to Mr. Cama. He agreed with me that in the midst of all differences of views among the various sections of all the different religions, Sir Oliver Lodge's book supplied a sure scientific basis of Truth and Belief in the Supreme Power.

The Society has published upto now the several Reports of its Proceeding intermittantly.

Papers have been read before the Society by some distinguished non-Parsees. Among these, there was a paper by Professor Rajaram Ramkrishna Bhagvat of St. Xavier's College. The paper was on the subject of "The Meher Yasht" and it was read and discussed at a number of meetings.

The Society had no location of its own upto now. It met at different places. But now it is located in the K. R. Cama Oriental Institute. I had the pleasure and honour of starting and collecting among the Parsees a Memorial fund in honour of Mr. Cama on his death. I entrusted the amount, which in

all amounted to about Rs. 12,000/- to the Institute, on condition that the Moola Feroze Library and the Society, in both of which Mr. Cama took a great interest, may be given a home in its premises.

The meetings of the Society have been occasionally attended by European savants coming to this country. Professors Darmesteter and Jackson were among these."

At this stage Prof. V. K. Rajwade, representing the Bhandarkar Oriental Research Institute proposed that as the time at the disposal of the Conference was short, the reports should be presented to the conference by the representatives of the various Institutions and should be taken as read. The suggestion was unanimously accepted. The following Reports were presented to the Conference and taken as read. These are here given in full.

(4) *Report of the K. R. Cama Oriental Institute:* by Mr. R P Masani.

" It gives me great pleasure and pride to present to the Conference a brief account of the origin and activities of the K. R. Cama Oriental Institute. It would have come more fittingly and much more effectively from the gifted pen of so eminent a scholar and educationist as the Rev. Dr. D. D. Mackichan, M.A , D. D., LL.D., President of the Executive Committee of the Institute, but as he considers that it should come from me as one of the active promoters of the Institute, I cheerfully respond to the call, although I feel I can assert no claims to oriental scholarship myself.

On the 20th August 1909, a simple, earnest, saintly scholar breathed his last in Bombay. Remarkable as was his personality, long, phenomenally long, arduous, many-sided and high-minded as were his activities and services in the spheres of social elevation and civic progress, the late Mr. Khurshedji Rustomji Cama will be best remembered amongst the present and future generations of Bombay as one of the most enlightened followers of the Zoroastrian faith, as an ardent student and cultured exponent of the doctrines and root principles of the time-hallowed scriptures of the Parsis, and as the father and founder of a new and

critical method of study of the teachings of the great prophet of Persia. For the recent awakening of interest in Avesta learning amongst the members of their community, the Parsis are indebted to Western scholars. But the labours of these scholars in the early part of the last century would have borne no fruit, had there not been one among the Parsi community to enter into the spirit of those scholars and to appreciate the lines on which the Zoroastrian scripture should be studied and construed. To the late Mr. Cama belongs the credit of introducing among his co-religionists, at a time of religious decadence, the study of comparative religion and comparative philology. Though not a millionaire, he opened classes for teaching Avesta and Pahlavi languages to the Parsi priests, paid scholarships for attending the classes and took a delight in dedicating his leisure hours to the instruction and enlightenment of the priests. Thus was he the Guru of Gurus of the ancient faith.

It was, therefore, natural that there was a consensus of opinion, when the eminent scholar and philanthropist passed away, that the most fitting monument to his memory should be an Oriental Institute for the promotion of Oriental studies and research. The proposal emanated from Dr. Mackichan. It was approved of by the committee appointed on the 8th December 1909 at a large influential meeting of the citizens of Bombay, to collect subscriptions for a suitable memorial to commemorate the eminent services of Mr. Cama and to promote the many activities to which he had devoted himself with exemplary zeal and self-sacrifice.

Subscriptions were received to the extent of Rs. 1,10,000. This included a munificent donation of Rs. 1,00,000 from a Hindu friend and admirer of Mr. Cama, the late Mr. Damodar Gordhandas Sukhadwalla. Unique as was Mr. Cama in his catholic sympathies, broad-minded tolerance and devotion to the cause of intellectual enlightenment and social emancipation, no less remarkable was Mr. Sukhadwalla for the catholicity of his views and his anonymous donations for the furtherance of projects for the social and intellectual advancement of the people.

A separate fund amounting to Rs. 12,100 raised exclusively by the Parsis for perpetuating the memory of Mr.

Cama, was also made over to and amalgamated with the Institute fund. A Trust Deed was then drawn up defining the objects of the Institute and the considerations under which the Institute was to be maintained and was approved at a meeting of subscribers held on the 31st October 1916. At the same meeting the undermentioned gentlemen were made Trustees of the Institute :—

Rev. Dr. D. Mackichan, M. A., D. D. LL. D.

Dr. Sir Stanley Reid, LL. D.

Shams-ul-Ulama Dr. Jivanji Jamshedji Modi, B. A.,

Ph. D., C. I. E.

Mr. Sorabji Edulji Warden.

Mr. Mahomedbhoy Currimbhoy.

Mr. Kazi Kabiruddin, Bar-at-Law.

Mr. Rustom K. R. Cama B. A., LL. B.

Mr. Krishnalal Mohanlal Jhaveri, M. A., LL. B.

Mr. Rustom Pestonji Masani, M. A.

The inauguration ceremony of the Institute was performed on the 18th December 1916 by His Excellency Lord Willingdon amidst a large and influential gathering of the citizens of Bombay.

The object of the Institute is to promote and advance Oriental studies, to offer facilities to the existing societies and institutions engaged in such work and to found scholarships for encouraging and advancing Oriental studies. A Fellowship has been already endowed for the preparation of scholarly treatises on subjects connected with Iranian civilization and literature for collecting and editing manuscripts in Iranian and Arabic languages, for translating such manuscripts or for travelling and collecting materials such as copies of old documents, colophons of old manuscripts etc. for the history of the Parsis in India. It is proposed to endow other fellowships for research in Sanskrit works or Muhammadan or Post-Islamic Persian or Arabic literature. Thus the work of the Institute will not be confined to the promotion of Iranian studies only, but will also embrace the advancement of studies and research in Sanskrit, Persian and Arabic lore and the Institute, it is hoped, will be a centre of many-sided activities in Oriental scholarship, worthy of the

distinguished scholar, whose valued services to the cause of oriental learning it commemorates and worthy also of the second City in the Empire in which it is located.

The Executors of the late Mr. Cama's will were good enough to present his private library to the Institute. It is intended to be the nucleus of a comprehensive collection of works bearing on Oriental literature. With it is also located in the Institute the famous Moolla Feroze Library, which is now happily removed from the obscurity of a corner in the Dadyseth Fire Temple at Thakurdwar. The Moolla Feroze Madressa now holds its classes in the same premises and facilities have been given to the Zarhoshti Dinni Khol Karnari Mandali and the Parsi Writers Association to hold their meetings in the Institute.

It is pleasing to record the encouragement and support given to the Institute by the Government of Bombay. From the very commencement of the project Lord Sydenham, the then Governor of Bombay, took a keen personal interest in the work of the Committee. While the scheme was matured, Lord Willingdon's Government were pleased to sanction a grant of Rs. 30,000 to the Institute. This amount has been set aside by the Committee as a special endowment for the foundation of a Fellowship or Fellowships and the interest thereof will be devoted in the first instance, to the work of compilation of a full and descriptive catalogue of all manuscripts and books in the Institute. Mr. Bomanji Nasarwanji Dhabhar, M. A., has been appointed a Fellow for the work of preparing the catalogue on the lines of those prepared for the Bodleian Library at Oxford, the British Museum and the Moolla Feroze Library. It is expected that it will be completed before the end of this year. Other small funds have been endowed, largely due to the generosity of the heirs and relations of the late Mr. Cama, for prizes to be awarded to students for essays on subjects relating to Avesta and Pahlavi literature. One of these is the "Surrosh K. R. Cama Memorial Prize," for which any person, who writes in English the best essay on the life or teachings of Zoroaster or some such cognate subject, will be eligible.

The Institute is still in its infancy. It has taken a long time to settle the preliminaries and to overcome the initial

difficulties. Now is the time for undertaking research work. Heretofore, Bombay could not boast of a worthy centre for Oriental research. Now we have got one. Similarly, Poona City has been fortunate enough to get an Institute endowed in honour of another distinguished Orientalist. Let us make these worthy centres in all respects so complete and so fully equipped that scholars from the East and scholars from the West, who are in search of materials for their researches, may find therein what they want. Let us also encourage young men to avail themselves fully of the priceless treasures within their reach.

The graduates of our universities represent the pick of Indian literary culture. It is their sacred trust and privilege to guard and to enrich the treasures of Oriental literature. A taste for such pursuits cultivated, during their college days, would be an asset to them and to the community. How to create and stimulate it, is a problem to which our research institutes will have to devote special attention. Years ago the Dakshina Fellowships were instituted for the express purpose of encouraging the ablest young men of the Presidency, to apply and concentrate their energies for the best years of life on the development of vernacular literature. "What we want", observed the then Director of Public Instruction, Mr. Howard, "is a race of native authors who, being full of sound learning and European science, would, out of the fulness of their minds, write books of authority fashioned in native moulds of thought". Accordingly, under the scheme as originally sanctioned, each Fellow was to deliver every year a course of lectures in the college and publish a treatise in the vernacular. He was, so to say, told that he had no right to enjoy the feast of knowledge in silence and without company but that it was his duty to invite his uneducated or less educated brethren to the banquet. Within a short time, however, the Fellowships dwindled into mere college-tutorships to the detriment of the Fellows as well as the pupils. About 15 years ago, I brought this matter to the notice of the then Director of Public Instruction, Mr. Giles, and pointed out to him how much useful work could have been done for the cultivation of vernacular literature, had not the original

object of the Fellowships been lost sight of. He, however, found it impossible to deprive the college professors of the assistance that they used to receive from the Dakshina Fellows in their work and suggested that I should move the University in the matter. The University has since taken some measures for the recognition of the vernaculars, but that is no justification for the appropriation of the Dakshina Fellowships for a purpose, for which they were never intended. I would, therefore, appeal to the Cama and Bhandarkar Institutes to make a joint appeal to the Educational Department for earmarking at least a few Fellowships for the original object. I have no doubt the present Director of Public Instruction, the Hon'ble Mr. J. G. Covernton, C. I. E., will lend a very sympathetic ear to the representations of such influential organizations. The two Institutes may also press upon the attention of the University the desirability of offering incentives to young graduates for oriental studies and research."

(5) *Report of the Bhandarkar Oriental Research Institute:*

"I HISTORY.—The idea of an Oriental Institute, offering facilities to research workers and at the same time commemorating the work and name of Sir R. G. Bhandarkar, originated towards the middle of 1915. The scheme was received enthusiastically, and with public support, Government sympathy, and chiefly the noble aid rendered by Sir Ratan and Sir Dorab Tata, the scheme soon materialized, and the Institute was formally inaugurated by H. E. Lord Willingdon, the then Governor of Bombay, on the 6th of July 1917. One part of the main buildings of the Institute—the J. N. Tata Research Hall—was opened by Shrimant Balasaheb Pant Pratinidhi, Chief of Aundh, on 6th July 1918. The Institute began its literary work in October 1918. The Government of Bombay transferred to the Institute the Manuscripts Library formerly at the Deccan College, together with a maintenance grant of Rs. 3000, and also handed over to the Institute, provisionally for five years, the management of the Bombay Sanskrit and Prakrit Series, together with a grant of Rs. 12,000 for that purpose.

II OBJECTS.—(a) To place within the easy reach of advanced research students a first class and up-to-date Ori-

ental Library and to afford them all other ready-made helps in the way of select topical bibliographies, digests of magazine articles, card-indexes and similar critical material.

(b) To train qualified students in the scientific methods of research along Western lines by opening post-graduate classes, founding lecturerships and in time, preparing students for higher degrees in Oriental research.

(c) To place the indigenous learning of Shastris on a broader and sounder basis.

(d) To publish, with the co-operation of distinguished scholars, critical editions of texts, original and independent works, bearing upon Indian Antiquities and Literature, as also a Journal, Proceedings, Catalogues, Reports and Occasional Studies.

(e) To act as a bureau for literary advice and information on points connected with Oriental studies.

(f) And generally to do everything for the advancement of Oriental learning and studies.

III WORK.—(a) The MSS. Department, in addition to lending out MSS. under the usual conditions, has on hand the completion of the card-catalogue of all the MSS. of the Government Library, as a preliminary to a subject and author catalogue of the same. In the near future would be published a catalogue of about 2,500 MSS. added to the Library during the last twenty years. It has also undertaken a descriptive catalogue of all the Jain MSS. in the library which has a larger number of these MSS. than any other Library. This catalogue is being compiled under the immediate direction of the distinguished and learned Jain Muni Jinavijayji of Poona.

(b) The Publication Department, besides conducting the work of the Bombay Sanskrit and Prakrit Series, has undertaken a new Series which includes texts, and independent and original works. For this, co-operation of scholars from everywhere is solicited. It is also hoped to publish, in the very near future, an authoritative edition of the works of Sir R. G. Bhandarkar, prepared under his supervision. In recognition of the handsome help promised by the Jain

Community, the Institute is devoting special attention to the publication of Jain Literature.

(c) The Research Department invites distinguished Oriental scholars to read papers at the Institute. These papers are published in the Journal of the Institute. A class in German, for the benefit of advanced scholars desirous of learning this language, was regularly held by Dr. K. K. Joshi of the Fergusson College at the Institute. A similar arrangement has been made for a French class. At the request of a number of scholars, it is proposed to open classes in Pali, Prakrit, Archaeology and the old Sāstras, under proper guidance. In order to initiate the Shastris into the critical method of study, lectures will be delivered for their benefit from time to time in Marathi, summarising the results of the latest research. Provision is being made for teaching the M. A. courses of the University of Bombay in Sanskrit and allied subjects at the Institute.

(d) The Library Department will soon publish a catalogue of the magnificent Library of Sir R. G. Bhandarkar, of which he has made a free gift to the Institute, and a part of which is already transferred to the Institute. The work of preparing digests of Magazine articles and bibliographies is proceeding apace. The Institute seeks co-operation from publishers and authors for being kept in touch with current Oriental Literature.

(e) The Mahābhārata Publication Department owes its existence to the liberality of Shrimant Balasaheb Pant Pratinidhi, B. A., Chief of Aundh. He has undertaken to pay annually Rs. 6000 for preparing a critical and authoritative text of the great Indian Epic with illustrations. Public support is still required to meet the other half of the expenses. A prospectus preliminary to this edition was published on the 1st of April 1919, and the work of collating and comparing MSS. and preparing the press copy begun on that day. The preparation of the press-copy is calculated to require about eight years. The Prospectus (pp. 44) gives a summary of all important writings bearing on epic studies, indicates in full the nature and the method of the new edition now in preparation and has a sample illustration, drawn in three

colours by Shrimant Balasaheb Pant Pratinidhi and his artists. Co-operation and suggestions are invited from scholars in the investigation of MSS. and the preparation of the text. A responsible editorial committee has been appointed to supervise the collation work from time to time. The staff at present consists of the Secretary and Editor, one Graduate and three Shastris. The work is going on necessarily at a slow pace. To quicken it, more men will have to be engaged, which means more money will be required. The different Governments and states are being approached for this purpose.

(f) The Journal of the Institute was started in July 1919 under a responsible committee. It is expected that the Journal will, in the first instance, be issued twice a year; in July and in December. The first number also contains the reports of the Executive Board and the Council, statement of accounts, list of publications presented to or bought by the Institute, list of members and other useful information. The articles in the first number are of varied interest and will speak for themselves.

(g) The information Bureau supplies gratis information on any literary or historical point to all enquirers.

IV MANAGEMENT.—H. E. Lord Willingdon, now the Governor of Madras, is the President, and the Chief of Ichalkaranji, Sir Dorab Tata and His Holiness the Shankaracharya of Karvir Math are the Vice-Presidents of the Institute.

The General Body of the Institute consists of all contributors to the Institute under the rules. The contributors have a right of electing members to the Council and being themselves so elected. The General Body meets once a year to adopt the annual report of the work of the Institute.

The Regulating Council consists of 30 members, 25 elected triennially by the General Body and 5 nominated by the Government of Bombay. The present Council has members on it from different parts of India. The council meets ordinarily twice a year, passes budgets, controls finances, exercises general supervision and elects an Executive Board.

The Executive Board, which carries on the work of the Institute, consists of nine members, two of whom are elected

from among the five Government nominees on the Regulating Council. For facility of work, the Board has appointed committees to carry on the different activities of the Institute as indicated above.

The present Executive Board consists of:—

1 Prof V. K. Rajwade, Chairman; 2 Dr. S. K. Belvalkar; 3 Prof. N. D. Minocher Homji; 4 K. G. Joshi Esq.; 5 Prof. R. D. Ranade; 6 Prof R. D Karmarkar; 7 N. B. Utgikar, Esq. Curator ; 8 Dr. N. G. Sardesai, Treasurer; 9 Dr. P. D. Gune, Secretary.

V PRESENT NEEDS.—Though the Institute is well started on its career, much remains to be done for establishing it financially on a sound basis. All the money it has received upto now, has come ear-marked for specific purposes. The most urgent need is of the addition of the two projected wings to the J. N. Tata Research Hall. In fact no exteusion of the Libraries and the Reading Room can be contemplated unless the Institute has more room at its command. Shet Khetsey Khiasey of Bombay has promised to pay Rs. 25000 towards the cost of one hall and the Institute has recently approached Government for a contribution of Rs. 45000 for another Hall. The difference of 20000 in the cost of the first hall will have to be made up by subscriptions. New and permanent sources of income are required for building up a permanent fund. The Library will have to be maintained at a high level, and an Oriental Reading Room containing journals etc., is a prime necessity.

VI MEMBERSHIP.—There are four ways of joining the Institute ; as a patron paying Rs. 1000, as a vice-patron paying Rs. 500, as a benefactor paying Rs. 250, as a lifemember paying Rs. 100 and as an annual member paying Rs. 10 annually. Members are entitled to a free copy of the Journal of the Institute and to all the privileges of the libraries. They are also entitled to a participation in the management as indicated above."

(6) *Report of the Karnatak Itihāsa Mandala :—*

(1) *Introductory*

"The Kanarese country is studded with monuments of archaeological interest, such as temples, stone slabs,

copper plates etc. The Kanarese literature abounds in incidents relating to various dynasties, such as the Cālukyas, the Rāstrakūtas, the Kalacooryas, the Yadava Princes of Dorasamudra and Devagiri and the Bijayanagar Rayas.

Mysore, the southern part of the Kanarese country, has successfully collected and printed the available inscriptions and other material; while the other part of the country is yet unexplored, and consequently the history of the great mediaeval dynasties remains closed to the world. Hence the necessity of an indigenous association like the Karnatak Itihāsa Mandala.

(2) *The objects.*

The society is formed mainly with the object of collecting historical facts out of the vast material lying scattered in the country and to place the same before the world in general and the Kanarese people in particular. The society was founded in Dharwar on 29-9-1914 with 7 members to start with. Its present strength is 112.

(3) *Constitution.*

The society is managed by 5 members of the Managing Committee headed by a President. The members themselves have got a power of filling up the vacancies created in their rank. No system of annual election is in vogue. The membership is open to any one who desires to study the history and work in the line.

(4) *Difficulties and assets.*

1. The society has got all the disadvantages of being placed in a locality far removed from the Presidency towns.

2. It feels greatly the want of a good library consisting of books of reference upto date, principally on history, archaeology and architecture.

3. It is not so much in touch with the archaeological departments.

4. It has to work amidst the ignorance and the consequent apathy of the general public.

5. Want of funds is the greatest impediment that hampers the work of the society on all sides.

6. The society has got no building of its own ; its few book-shelves are kept in the Karnatak Vidyā Vardhaka Sangha, and its Hall is occasionally used for its meetings.

7. The present library of the society, called "The Prayag Library", consists of several good books worth nearly Rs. 500. Besides the books, the society possesses tāḍavalis, copper images, some coins, some deciphered copies of copper-plates, a number of imprints of stone-slabs, manuscripts and a number of documents and title-deeds.

8. The society's library is supplied, free of cost, with the reports of the Archaeological Departments of the Governments of Mysore, Bombay, Madras and the United Provinces.

9. The Mysore Archaeological Department has been helping the society to decipher the society's inscriptions and manuscripts whenever necessary.

10. The society has got some advantages also. It is placed in the midst of the materials that supply historical information. It is an indigenous one. Besides, it has the advantage of its members knowing Kanarese, in which language alone almost the whole of the available information is shrouded.

(5) Work accomplished

Various articles are published by the society through Kanarese, Marathi, Bengali and English magazines and papers such as the *Vāgbhūṣāṇa* (Kan), *Śabdacandrikā* (Kan), *Karṇāṭaka Sāhityapatrikā*. (Kan), *Citramaya Jagat* (Mar), *Bhāratī* (Ben), *Hindusthan Review* (Eng) and *Karnatakī* (Eng). A pamphlet about Karnatak history is written in English. A special history in Kanarese is printed (its first Edition of 1917 is exhausted ; the 2nd will be out soon). The society has also supplied information to the Bhārata Itihāsa Samśodhaka Maṇḍala, Poona, about the Kittur Desai's family and local traditions about the Desaini of Bellodi, who repulsed Shivaji's attack on her principality. An article has been published about Shahaji's tomb in the Shimoga district. To create an awakening among the Kanarese people, a Kirtana about Śrī Vidyāranya (the famous founder of

the Bijayanagar Empire) and his life has been published and it was performed in various places.

In May 1918, a small exhibition of historical curiosities was held by the society in the Dharwar Training College for men, along with the 4th Karnatak Sahitya Sammelana. Magic lantern slides about the places of historical interest in Karnatak were shown by the society in the same Sammelana.

Places of Karnatak history such as Hampi, Halebidu, Belur, Shravana Belugal, Harihara, Badami, Patadakal, Aihole, Lakkundi, Annigeri, Laxmeshwar, Itagi, Chowdada-napur, Verul, Daulatabad, Shrirangapatam, Mysore and Bijapur were visited by members singly or in groups. Lectures about the epochs in Karnatak history were given in Poona Colleges and in Belgaum, Dharwar, Hubli, and Kirtans of Sri Vidyāranya were performed in Dharwar, Hubli, Gadag, Davangeri, Belgaum and Hungund."

(7) *Report of the Āndhra Pariśodhaka Mahāmandali of Pithapuram, Godavari district :—*

"This institution was started in 1917 by Mr. Ch. Dharmarao (Bar-at-law) and Mr. Kavyanidhi Ch. Satcha Rao, Zemindars of Yernagudem.

The objects of the Mahāmandali are (1) collecting MSS., inscriptions and coins, (2) Facilitating the work of Research particularly in Telugu, (3) Popularising history and encouraging historical productions etc.

The institution has a neat little building of its own in which the Library is now situated. In spite of a copious collection of MSS., both by the Government of Madras and the Telugu Academy, our Mahāmandali could make a very satisfactory collection in these two years.

The Library was opened by the Hon. Rajah of Pithapuram, C. B. E. & F. M. V., when several Telugu scholars of great eminence were present, notably, the late Rao Bahadur K. Vireshalingam Pantulu and Mr. J. Ramiah Pantulu, a great epigraphist.

We could hitherto collect about 2500 MSS. in Sanskrit, Telugu, Canarese and Tamil languages, of which several were hitherto unheard of. We very recently began collection of coins and inscriptions, some of which are exhibited now here, with a photograph of our Library and its buildings.

Some inscriptions were deciphered and texts were published in our vernacular Magazines. As we are new to deciphering of coins, we would like to place them before scholars for examination. We propose sending one of our Pandits to the Bhandarkar Oriental Research Institute, for training in the near future.

The following old books were published by us (1) *Jāhnavī Māhātmyām* (2) *Siṁantinī Kalyāṇām* (3) *Nītihāra Muktāvali*, (4) *Puṣpabāṇavilāsu* (5) *Nārāyaṇa Śataka*, (6) *Candraśūta* (7) *Vijaya-nandana Vilāsa*, (8) *Vālmīki-caritra*. *Vālmīki-caritra* was written by Raghunātha Bhūpāla, a Mahratta king of Tanjore. These books were unknown upto now even to the Āndhras and they throw additional light on the history of Telugu Literature, particulars of which need not be mentioned here.

A printing press was recently started to facilitate the work of the Mahāmaṇḍali. The hitherto unpublished works, *Śataka Kavi Caritra* and *History of Telugu Literature* will soon be given to the public.

Detailed reports of the work and descriptive catalogues of MSS. and inscriptions, will be issued shortly after a good collection is made and we mean to publish the Saṅskrit part of our catalogue in English for the use of Orientalists.

In this connection mention has to be made of a Telugu Ms. which was recently procured. It was dedicated to a grandson of Chatrapati Shivaji's brother, the Rajah of Tanjore; and in the Krityadi of which, a full genealogy and achievements of Shivaji and his successors are given, which may be of interest to historians of Maharashtra. One Chidambara-kavi, a Mahratta by birth, about 300 years ago, wrote a book in Telugu called *Āṅgadarāyabhavam* in the preface of which he says that, though his mother-tongue was Marathi, he was tempted to write in Telugu on account of its

sweet and melodious sound. Thus we find several Mahratta princes as patrons of Telugu letters."*

14. The Conference then proceeded to the reading of papers and the Vice-President called upon Shrimant Balasaheb Pant Pratinidhi, Chief of Aundh, to read his paper on *the Drapery in the Mahābhārata*. The full text of the paper will appear in the second volume of the *Proceedings of the First Oriental Conference*, Poona. The President suggested that, as it was not possible to discuss the question during the session, if any body had anything to say on that point, he should communicate with the *Mahābhārata* Editorial Committee of the Bhandarkar Institute.

As Shams-ul-Ulama Saiyid Muhammad Amin of Jubbulpore and Maung Schwe Zan Aung Esq. of Rangoon were not present to read their papers on *A short note on the Arabic Language* and *The Buddhistic Philosophy of Change* respectively, the Vice-President called upon Prof. D. R. Bhandarkar to read his paper on *The Origin of the Indian Alphabet*, which he did in extracts. He was followed by Prof. M. Hiriyanna of Mysore, who read out important points from his paper on *Indian Ästhetics*. Then came Dr. Gauranganath Banerjee of the Calcutta University, with his *India as known to the Ancient World* which he read almost in extenso. Mr. S. K. Hodivala of Bombay followed with his *Varuna, the Prototype of Ahuramazda* of which he read the summary. After him Dr. Ganganath Jha read his paper on *Theism of Gautama, the Founder of Nyāya*. Lastly Prof. S. Krishnaswamy Aiyangar of the Madras University made a brief speech and indicated the salient features of his paper on *Vaisñavism in Southern India before Rāmānuja*.

Owing to the want of time, there could not be any discussion on these papers, all of which are being printed in the second volume of the *Proceedings*. The session closed at 5-30 P. M.

*A report was also received from the Maharaja's Sanskrit College of Indore. But it is not our function to print reports of scholastic and collegiate institutions.

III. THIRD SITTING, THURSDAY, THE 6TH NOVEMBER 1919.

8-30 A. M. to 11 A. M.

15. The whole of this day was reserved for reading papers. The sectional meetings in different subjects commenced at 8-30 a. m. Several tents were erected near the pandal, with seating accommodation for members, and the pandal itself was divided into four sections by means of screens. The following sections could therefore conduct their meetings simultaneously.

(1) The Vedic Section : Chairman, Dr. R. Zimmermann. The attendance was about sixty, as delegates attended one section or another, of the many that were going on at the same time, according to their choice. The following papers were read and discussion followed at the close of each.

The Nighaṇṭu is not the work of the author of the Nirukta: Prof. R. D. Karmarkar of Poona.

A Study of the Idea of Rudra : Mr. S. D. Satvalekar of Aundh.

Gotra and Pravura: Rao B. C. V. Vaidya of Kalyan.

Reference to the Mahābhārata in the Āśvalāyana Grhyasūtra: Mr. N. B. Utgikar of Poona.

The Nirukta and Nighaṇṭu; their mutual Relations : Prof. Siddheshvara Varma Shastri of Shrinagar.

Ārya and Dasyu, a Chapter in social History : Mr. S. V. Viśvanath of Trichinopoly.

Dr. Zimmermann summed up the discussion and complimented scholars on the high level of scholarship and the critical acumen displayed in the papers generally. The sitting closed at about 10 A. M.

(2) The Avesta Section met after the Vedic section had finished. Dr. J. J. Modi was in the chair. The following papers were read and discussion followed.

Arekhsha, the Archer and his Arrow: Mr. B. T. Anklesaria of Bombay.

Aitareya: Dr. I. J. Taraporewala of Calcutta.

Avestan Archangels and Sanskrit Deities : Mr. A. K. Vesavevala of Bombay.

Sāmbākhyāna and early Zoroastrian Migration into India :
Mr. K. N. Sitaram of Madras.

Modern Science in Ancient Iran : Mr. M. B. Pithawala of Poona.

The chairman summed up the discussion and was generally satisfied with the output. The meeting closed at about 11-15 a. m.

(3) The Classical Literature and Modern Vernaculars Section : Chairman, Prof. S. Kuppuswami Shastri. The following papers were read and discussion followed.

Śakuntalā, an Allegory : Mr. N. S. Adhikari of Gandevi.

The Relation of Śūdraka's Mṛcchakaṭika to the Cārudatta of Bhāsa : Dr. S. K. Belvalkar of Poona.

Psychological Study of Kālidāsa's Upaniṣads : Mr. P. K. Gode of Poona.

Kālidāsa and Music : Sardar G. N. Mujumdar of Poona.

Kāṇūṭilya and Kālidāsa : Mr. H. A. Shah of Bombay.

The History of Guṇas in Alankāra : Prof. V. V. Sovani of Meerut.

Funeral Place of Kālidāsa : Dr. Satis Chandra Vidya-bhusana of Calcutta.

The Text of Śakuntalā : Prof. B. K. Thakore of Poona.

After summing up the discussion, the chairman proceeded to the Modern Vernaculars Section, where the following papers were read.

The Dravidian Tense-suffixes : Mr. R. Swaminath Aiyar of Vemur.

Old Telugu Literature : Mr. K. Sitaramaiya of Vemur.

Telugu Language and Literature : Mr. G. Somanna of Madras.

(4). Ethnology and Folk-lore Section : Chairman, Dr. J. J. Modi. The following papers were read and discussion took place on some of them. The audience numbered about fifty.

The Rationale of the Hindu Śrāddha : Mr. A. Govind-caryaswami of Mygore.

A Note on the Dissolution of Castes and the Formation of new ones : Dr. S. V. Ketkar of Nagpur.

A brief History of the Survey of the Ethnography of Bombay : Dr. J. J. Modi of Bombay.

A Plea for the Pre-historic Survey of India : Mr. Hayavadanarao of Madras.

(5). The Persian and Arabic Section was presided over by Prof. S. Khuda Bukhsh of Calcutta. About forty members were present. The following papers were read.

Persian and Arabic Words in Marathi : Prof. M. T. Patwardhan of Poona.

The un-known Ya in Persian : Prof. A. K. Shaikh of Bombay.

Arabic Star-names in Persian Literature : Mr. Saiyid M. Ahmed of Hyderabad.

Ukhāharāna in Shahnamah or the Persian Version of the Story of Ukhā : P. B. Desai of Bombay. (The paper was read by Mr. M. T. Patwardhan in the absence of the writer).

A Short Note on the Arabic Language : A. Saiyid M. Amin. (The paper was read by Saiyid Mukhtar Ahmed).

(6). The Technical Sciences Section had for its Chairman Mr. G. R. Kaye of Simla. The following papers in different Technical Sciences were read with interesting discussion. The audience was about forty.

Authorship of Rasārṇavasudhākara : Dr. P. R. Bhandarkar of Indore.

A Note on the Early History of Music : Mr. Clements of Belgaum. (The paper was read by Rao Bahadur K. B. Deval of Sangli.)

Classification of Melodies : Prof. V. G. Paranjpe of Poona.

A short Note on the Use of Metres by Sanskrit Poets : Mr. A. S. Bhandarkar of Poona.

A Note on the Ancient System of Medicine : Mr. M. Amin of Hyderabad.

Rasavidyā or Alchemy in ancient India : Mr. R. V. Patwardhan of Poona.

Hindu Astronomy : Prof. G. S. Apte of Gwalior.

On the use of the Astronomical Phenomena in fixing the Chronological Periods in Indian History : Mr. V. B. Ketkar of Poona.

An Eye-table of Brahmasiddhānta : Divan B. L. P. Swamikannu Pillai, of Nellore.

On the Origin of the Week : Mr. R. Shamashastri of Mysore.

Town-Planning in Ancient India : Mr. Bhababibhuti Vidyabhushana.

(7). The Archaeological Section met under the chairmanship of Prof. D. R. Bhandarkar. About one hundred delegates attended ; the following papers were read with some discussion.

Sanskrit Manuscripts; their Search and Preservation : Mr. R. Anantakrishnashastri of Baroda.

Introduction to the Study of Ancient Indian Architecture : Mr. M. A. Ananthalwar.

The early Kalacuris and the Alphabets of their Copper-plate-grants : Mr. Y. R. Gupte of Poona.

Indo-Aryan Style of Architecture : Y. R. Gupte of Poona.

The Caverns and the Brāhma Inscriptions of Southern India : Mr. H. Krishnashastri of Madras.

Jain Manuscripts Bhandar of Patan : Mr. J. S. Kudalkar of Baroda.

A Note on the Tilakwada Copper-plate Inscription of the Time of King Bhoja Paramar of Malwa : Mr. J. S. Kudalkar of Baroda.

(8). The Sanskrit-papers Section: Chairman, Mahāmahopādhyāya Laxmanshastri Dravid of Calcutta. Eighty Pandits and scholars attended. The following papers were read.

The City Deūrakā : Mahāmahopādhyāya Hathibhai Shastri of Jamnagar.

The Pada and Vākyā Bhāṣyas of the Kenopaniṣad : Pandit. Shridhar Shastri Pathak of Poona.

The Time of Haribhadrasūri : Muni Jinavijayaji of Poona.

The Medical Properties of Indian Herbs : Purushottam-shastri Nanal of Poona.

The Importance of Sanskrit and its Study : Pandit Rama-shastri of Madras.

The Meaning of Śruti : Mr. Maganlal Shastri of Bombay.

The Viśiṣṭādvaita Principles : Padit N. Tirumalacharya of Bangalore.

A wrong Interpretation of the Mimāṃsā Sūtra VI, 1, 24 : Pandit G. V. Phadke of Ahmednagar.

The Viśeṣādvaita Philosophy : Pandit Virupaksha Wodeyar of Indore.

IV. FOURTH SITTING, THE SAME DAY.

2-30 P. M. to 5-30 P. M.

16. Reading of papers in sections was again taken up.

(9). The Philosophy Section was presided over by Dr. Ganganath Jha. About eighty delegates attended and the following papers were read with discussion now and then.

Fallacies in Indian Logic : Principal G. C. Bhate of Sangli.

Some Aspects of the Doctrine of Pratibhā in Indian Philosophy : Pandit Gopinath Kaviraj of Benares.

The Relation of the Bhagavadgītā with Bādarāyaṇa Sūtras : Prof. R. D. Karmarkar of Poona.

The Springs of Action in Hindu Ethics : Mr. Sushilkumar Maitra of Calcutta.

Śaṅkara and Buddha : Mr. Pandurang Sharma of Poona.

Antiquity of the Bhagavadgītā : Mr. S. V. Venkateshwar of Madras.

Logic in the Philosophical Systems of Śaṅkara and Aristotle : Dr. Zimmermann of Bombay.

Śiva and Phallic Worship : Mr. G. K. Chandorkar of Dhulia.

(10) The Buddhism Section: Chairman, Dr. Satis Chandra Vidyabhusana of Calcutta. About seventy delegates

attended. The chairman opened the proceedings by a short speech on *The Revival of Buddhism* read for him by Mr. P. L. Vaidya of Sangli :—

' GENTLEMEN,

Kindly allow me to thank you most heartily for the honour you have done me by electing me one of your Vice-Presidents and Chairman of the Section on Buddhism. The present Conference must be unique, held as it is under the Presidency of one who is the greatest living Orientalist in India—I mean Sir Ramkrishna Gopal Bhandarkar, the guiding spirit of an Institute, which, under the conduct of a band of scholars, trained up under his influence, is moving forward in the advancement of Oriental studies. For the first time in the history of modern India, scholars of the old and new schools, both Indian and European, have met together to discourse on profound topics connected with the Oriental Culture.

Providence has granted to our country the good fortune of being linked up with a state that has exemplified, throughout its history, a beautiful reconciliation of the forces of conservation and progress. Treasuring up the experiences of the past, Great Britain has adapted itself to the measures of reform that the onward course of time showed to be necessary. India has need of the guiding hand of Britain at this juncture. The ancient learning of India does not, in this age, furnish a complete outfit of life. The exclusive spread of modern learning of the West, on the other hand, would efface the distinctive features of the Indian intellect and character. The Indian Government sees with a clear eye the need of a synthesis, and concerns itself as much with conservation of the ancient educational Institutions, as with the introduction of the useful sciences that this age prizes.

In the sphere of Oriental Scholarship, the ancient treasures of the land can be correctly appraised, if only they are presented in a form that can be appreciated all over the world, in accordance with the liberal and scientific methods which are followed in the West. This process would receive a stimulus from the holding of Conferences like the Congresses of Orientalists in Europe; and it redounds greatly

to the glory of the Bombay Presidency, that it has taken the lead in organising an assembly of this type for the first time on Indian soil. So many scholars have graced this assembly with their presence, and the subjects for discourse are so various in their nature, as to prove abundantly that the spirit of research has been awakened and our country is active in all its departments. This spirit of research, this eagerness to investigate afresh into the past acquisition of Indian intellect, is a gift of the West to the East. In ancient times the different branches of learning numbered fourteen, or according to some, eighteen. But the West has opened our eyes to richer fields of intellectual operation and multiplied the subjects of man's study to an enormous extent. It has further stimulated the study of the older subjects from new standpoints and according to new methods. As an instance of this, I proceed to give a short sketch of the Revival of Buddhist Studies in this country during the last century.

Interest in Buddhism roused in Europe.

A hundred years ago, none in Europe knew of Pali and Buddhism. Things were not better in India, where the people had lost all recollection of Buddha and his glorious doctrines. It is said that in the year 1687 A. D., Louis XIV of France sent an envoy named Loloubre to the king of Siam, who made a present of a bundle of Pali manuscripts to king Louis. Nothing, however, is known as to the kind of reception that was accorded to such a present at Paris. The Portuguese and the Dutch who ruled in Ceylon in the 17th and 18th centuries, in their zeal for establishing one religion on the earth and a universal brotherhood through the bond of Christianity, did not care to take notice of Pali or Buddhistic religion. Under them no native of Ceylon is said to have been eligible for a high appointment, unless he had embraced Christianity and assumed a Portuguese or Dutch surname. The country was administered according to the Roman-Dutch law. Luckily, Ceylon came into the possession of the British in 1811. With such a Portuguese and Dutch tradition behind him, it was no small courage on the part of Sir Alexander Johnston, the Chief Justice and first British member of the Executive Council of Ceylon, to move His

Majesty's Government at home to sanction the compilation, for the natives of the island, of a code of laws suitable to their peculiar religion, manners, usages and feelings. His Majesty granted the appeal. Sir Alexander also recommended to the Court of Directors at home the publication, with the text and a translation, of the *Mahāvaṁsa*, a Pali historical work giving a genuine account of the introduction and progress of Buddhism—a religion which, to quote the words of Sir Alexander, "whatever may be the nature and tendency of its doctrines, deserves the consideration of the philosopher and the statesman for the unlimited influence which it at present exercises over so many millions of the inhabitants of Asia." This work was prepared by Mr. Upham with the help of a Wesleyan Missionary, named the Rev. Mr. Fox, and printed in England. It was hailed with joy by the Asiatic Society of Bengal, in as much as it confirmed the identification of the Indian king *Chandragupta* with *Sandrocottus* of Greek writers and *Devānainpiya Piyadasi* of Indian inscriptions with *Aśoka* of the Pali Chronicle. In the meanwhile the Rev. Benjamin Clough published at Colombo in 1824, a Pali Grammar to unlock the treasure-house of Pali literature hitherto sealed to the civilized world. Messrs. Burnouf and Lassen published their essays on Pali at Paris in 1826 and 1827 respectively. George Turnour, another distinguished member of the Ceylon Civil Service, undertook to bring out a revised edition of Upham's *Mahāvaṁsa*, adding the chapters which had been left out. This edition saw the light in 1836. F. Spiegel, a German scholar, published in 1841 the Pali work of *Kammavāca* at Bonn, and in 1845 he published *Anecdota Palica* at Leipzig. In 1844 was published Burnouf's *Introduction to the History of Indian Buddhism*, a masterly work which challenged the attention of the whole Western world to Buddhism. In the same year Bishop BriganDET published from Burmese sources a comprehensive life of Buddha called the *Legends of Gautama*. In 1848 Rev. Hardy brought out a list of books in the Pali language, as also *Eastern Monachism, Manual of Buddhism*, and other valuable works from Singhalese sources. In 1855 Dr. Fausböll of Denmark published the Pali text of *Dhammapada* with a Latin translation and in 1861 the same scho-

lar brought out some of the Jātaka stories in Pali. Kaccāyana's *Pali Grammar* was published in the Bibliotheca Indica Series of Calcutta under the editorship of Dr. F. Mason in 1857. In 1866 Dr. Alwis published at Colombo, certain papers which aroused interest in the philosophy of Buddhism. In 1869 *Pūtimokkha*, the manual of laws regulating the conduct of Buddhist monks and nuns, was printed at St. Petersburgh under the editorship of J. Minayeff. In 1870 R. C. Childers published the *Khuddakapāṭha* and in 1878 the *Mahāparinibbānasutta* with their translations. In 1875 the same scholar brought out a *Dictionary of the Pali Language* which marked an important epoch in the study of Pali. In 1871 Emile Senart published *Kaccayana's Pali Grammar* with notes in French. In 1874 Mutu Coomarswamy published the Pali text with translation of *Dathavāmsa*. In 1876 P. Grimblot published at Paris seven Pali suttas of *Dīghanikāya*, while in 1877 a portion of the *Samyuttanikāya* was published by Dr. H. S. Ferer. In 1879 the *Dipavaṁsa*, with an English translation, was published by Dr. Oldenberg and subsequently the Vinaya texts were also brought out by him. In 1880 R. Pischel edited and translated the *Majjhimanikāya* and V. Trenckner edited the *Milinda Panha*. With the foundation of the Pali Text Society at London in 1882 by Professor T. W. Rhys Davids, commenced the systematic publication of Pali texts and commentaries, which has helped the spread of Buddhistic ideas all over the world.

The world again has gained much valuable information regarding Buddhism from the Chinese sources. Heinrich Julius Klaproth of Berlin published in 1802 his *Asiatische Magazin* in which he gave some account of Buddhism as derived from the records of China. In 1811 M. Abel Remusat published at Paris an essay on the Chinese language, in which he gave some indication of the kind of information available from that language about Buddhism. His French translation of Fa Hian's Chinese account of India was published at Paris in 1836. In 1857 appeared Julien's French translation of the Chinese accounts of India given by Hiuen Tsang. But no scholar has given more information to the world regarding Chinese Buddhism than Rev. Beal, whose English translations of the records left by Chinese pilgrims

to India began to appear in 1869. Subsequently there flourished other Sinologists such as Edkins and Eitel, whose works have thrown considerable light on Chinese Buddhism.

The third source from which the world has obtained information regarding Buddhism is the Tibetan. The forbidden land of the Lamas has been the reservoir of numerous works on Buddhism which were translated into Tibetan a thousand years ago, but the Sanskrit and Pali originals of which have been lost to India. In 1774 A. D. the Tashi Lama of Tibet sent a high Tibetan official, three senior lamas, and nine novice monks to conduct religious services at Benares and Buddha Gaya. This embassy carried with it a letter of introduction to Chait Singh, who was then Raja of Benares. In the same year a certain Englishman, named George Bogle, was sent by Warren Hastings, the first British Governor-General of India, to Tashilhunpo in Tibet. In the year 1783 A. D. another Englishman named Samuel Turner was sent to Tibet also by Warren Hastings. In 1811 Thomas Manning, also an Englishman, made his way from India to Lhasa where he saw the 5th Dalai Lama. Though there was thus some political relation established between Tibet and India in the latter part of the 18th century, Buddhism and Tibetan literature exercised no influence in India at the time. The first contribution to the knowledge of the Tibetan language came from one Mr. Georgi, another of *Alphabetum Tibetanum*. The work which supplied the real wants of European scholars was a *Tibetan Dictionary* with explanation in Italian published at Serampore, Bengal, in 1826. The Compiler was a Roman Catholic missionary who out of modesty chose to remain incognito. His work passed into the hands of another missionary gentleman of Bengal, Mr. Schroter, who substituted English for the Italian, and brought out the edition with a grant from the East India Company. The most comprehensive account, however, of Tibetan Buddhism was given by a Hungarian scholar named Alexander Csoma de Koros, who, anxious to find out the origin of his race in Central Asia, set out, when a mere boy, from Hungary and after undergoing untold privations succeeded in reaching Tibet where he studied the Tibetan language in a mona-

stery, living the life of an austere recluse. He brought out his Dictionary and Grammar in English, out of gratitude for the British patronage he received, in 1827 and 1834 respectively. The analysis of the *Kangyur* and *Tangyur* by him constituted the most valuable portion of the early numbers of the *Asiatic Researches*. Then followed Wassiljew, a Russian scholar, who during his ten years' residence at Pekin from 1840 to 1850, devoted himself to the study of the Chinese and Tibetan languages and gave unmistakable proof to the world that the "Russians, too, could do something for the learning." Wassiljew translated for the first time into the Russian language Lama Taranath's *Chos-byung* or the Tibetan History of Indian Buddhism, which was retranslated into German by Schieffner. M. Foucaux's *Rgya-cher-roi-pa* in Tibetan, was published at Paris in 1847. Koppen's *Religion of Buddhism* appeared at Berlin in 1857. Dr. Schlagintweit's *Buddhism from Tibetan Sources* was published at Leipzig in 1862. Next was Father Desgodins whose works, including a *Tibetan-Latin Dictionary*, were published at Verdun in 1872. Rev. H. A. Jaschke, a Moravian missionary, whose contributions to Tibetan literature had appeared as early as 1865, completed his well-known *Tibetan-English Dictionary* in 1881. Lt. Col. Waddell's *Lamaism* appeared in 1895.

Much valuable information regarding Mahāyāna Buddhism as taught in the Universities of Nālanda, Amarāvatī Odantapuri and Vikramśilā has been obtained from the vast mass of Buddhist-Sanskrit works that lie buried in the remote regions of Nepal. About 1820 A. D. Brian Houghton Hodgson, British resident in Nepal, sent a large and valuable collection of Buddhist-Sanskrit manuscripts as a present to the Asiatic Society of Bengal and he also contributed some valuable articles on the Buddhism of Nepal and Tibet to the journals of that Society. But it is a matter of regret that the manuscripts in question have not been utilised as they deserve to be, the majority of them remaining yet unpublished. A few Buddhist-Sanskrit works included in the Hodgson collection or obtained through other agencies, have been published in Europe, such as the *Mahāvastu* by Emile Senart in 1882. Several Buddhist

Sanskrit works discovered in Japan were published in the *Anecdota Oxoniensis Series* by Prof. Max Müller. The *Bibliotheca Buddhica Series* for the publication of Buddhist-Sanskrit works was started at St. Petersburgh in 1898.

The knowledge of Buddhism derived from Pali, Chinese, Tibetan and Sanskrit books has been greatly supplemented by what has been elicited from Epigraphic and Numismatic sources. Facilities were afforded for the publication of papers on Buddhism by the foundation in 1784 of the Asiatic Society of Bengal under the auspices of the British Government. The most important service of the Asiatic Society to the cause of Buddhism was the decipherment, in 1834, by James Prinsep, of the Aśoka inscriptions which had escaped the notice of keen observers like the Chinese pilgrims Fa Huen and Hiuen Tsang. These inscriptions became for some time "the wonder and despair of the learned." When deciphered, they supplied a connecting link between the history of India and that of other countries, containing such historical names as Antiochus Gnatus, Alexander of Epirus, Ptolemy Philadelphus, and Magus of Cyrene. Later on numerous other inscriptions on rocks, plates and coins were discovered and deciphered, which led to the foundation by the Government of India of the Archæological Survey Department in 1861 with General Cunningham as its Director. This Department, now working under the distinguished guidance of its present head, Sir John Marshall, by unearthing and collecting numerous important Buddhistic relics and remains, has helped in no small measure, the spread of Buddhistic knowledge.

Buddhism revived in India

I have tried to indicate from various sources the activities of European scholars from 1800 to 1880 A. D., when Pandit Satyavrata Samashrami of Calcutta, a Vedic scholar of wide reputation, brought out an edition of *Karṇḍavyūha* an old Buddhist-Sanskrit work of the Mahāyāna school. This work supplies an explanation of the formula *Oṁ mani padme hum*, styled *Ṣaḍakṣarī Mahāvidyā* or the great science in six syllables and best known in connection with the prayer-wheel of the Lamas of High Asia. The great

antiquarian Dr. Rajendra Lal Mitra, whose researches in the field of Sanskrit Literature and Epigraphy had won for him a European reputation, brought out in 1869 an edition of the *Lalitavistara*, at which he had, it is reported, been working since 1853. Subsequently Mahāmahopādhyāya Harprasad Shastri, C. I. E., Babu Pratap Chandra Ghose and others published certain Buddhist-Sanskrit works of the Northern school. But the person who did the most signal service to the cause of Buddhism, was the late Rai Sarat Chandra Das Bahadur, C. I. E., who founded the Buddhist Text Society in 1893 and published the *Tibetan-Sanskrit-English Dictionary* as well as a number of important Buddhist-Sanskrit and Pali works. I am in a position to bear personal testimony to the late Rai Bahadur's love of Buddhism and zeal in reviving it, inasmuch as I had the honour of collaborating with him for a series of years in many of his activities. The Mahābodhi Society was founded by the Anagārika H. Dharmapala of Ceylon at Calcutta in the year 1892 and in the same year the Buddha Dharmāṅkura Vihāra was established by the Bengal Buddhist Association. His Holiness the Tashi Lama of Tibet, during his tour in India in 1905-1906, founded in Calcutta a society called the Buddhist Shrine Restoration Society with Col. O'Connor, C. I. E., as its Director and myself as its Secretary. This review will not be complete without a reference to the services, in the cause of the revival of Buddhistic culture, of Justice Sir Asutosh Mookerjee, who, as the guiding spirit of the Calcutta University, took it up and made it popular among its alumni.

Character of the Revival

The researches on Buddhism made from different sides have opened before us a long forgotten stratum in the formation of Indian life, and have thrown a new light on the glorious past of our country. The history of India written in this light, will present the country in a new perspective. The canonical Buddhistic scriptures in Pali, which preserve the teachings of Buddha in their pristine purity, set forth the simple ideas and beliefs of the Indian people during the five centuries preceding the birth of Christ. From the non-canonical Pali literature, we get a glimpse of the internal

condition of India as known to the Ceylonese, Burmese and Siamese people at later times. The Buddhistic books in Chinese give us a faithful description of Indian life, social organisation and places of interest during the ascendancy of the Mahāyāna Buddhism from the beginning of the Christian era to about 800 A. D. As to the value of the information derived from the Chinese sources, it is enough to say that even in these days it is the light that guides the steps of archaeologists in their fields of research. The Tibetans have preserved for us, in translation, the Mahāyāna Buddhistic literature of India properly classified from their point of view, which supplies a mass of most valuable historical and geographical information about India up to the 17th century A. D. The Buddhistic books in Sanskrit give, besides other things, an account of the conflict between Brahmanism and Buddhism and of the precarious condition of the latter in its place of shelter in Nepal after its banishment from India.

The information gained from these sources has roused us as if by a trumpet-call to read the history of our country anew and to re-write it from a new stand-point—the stand-point of Buddhism. The country, seen through such a history, will shine out in a new glory and splendour. It will bring a new message to the world to inspire many struggling souls with a new hope, to stir new activities, to strengthen the drooping heart and to open before all a new world of thought.

The life-long labours of a noble band of scholars, pursued oftentimes under difficult and even impossible conditions, have thus at length awakened the Indian mind to the fact that 2500 years ago, there lived and preached an Indian prophet named Buddha, who, by the sublimity of his teachings, conquered the heart of Asia and won for India the glorious title of 'the Holy Land.' This awakening means a great deal more. It has brought back to India the highest ideal which is to be realised through a life of peace, amity and good will, not only between man and man, but also between man and other living beings. It has brought back that Philosophy which solves for humanity the most intricate problems of existence, by the rational interpretation of the

harmony of all conditions in the Absolute. It has brought back Buddha, the embodiment of supreme bliss, to proclaim once more from the holy land of India, with a voice mighty like "the sounds of many waters," in the midst of the clashing of passions and desires and the storm and stress of modern life, the birth of a New Age—the age of regenerate and passionless life of peace and humanity."

After the address was over, the following papers were read and discussion followed.

Vinaya Literature of the Buddhists : Prof. N. K. Bhagwat of Bombay.

The Burning of Mithila : Prof. C. V. Rajwade of Baroda.

Sogata Nāyasattham or the Buddhist Philosophy : Thera Widurpola Piyatissa of Ceylon.

(The last paper was delivered in Pali).

(11) The Ancient History Section met under the chairmanship of Prof. S. Krishnaswami Aiyangar. About one hundred scholars attended. The following papers were read with some discussion on each.

The basic Blunder in the Reconstruction of Indian Chronology by Orientalists : Mr. M. K. Acharya of Madras.

Karnatak and its Place in the Indian History : Mr. V. B. Alur of Dharwar.

The Kings of Āryāvarta defeated by Samudra-Gupta : Mr. K. N. Dixit of Patna.

Notes on the ancient History and Geography of Konkan Prof. P. V. Kane of Bombay.

The ancient Germans, their Manners, Customs etc. : Dr. J. J. Mody of Bombay.

Karnatak Country and its Language : Mr. R. Narsimha-char of Mysore.

Jāngaladeśa and its Capital Ahicchatrapura : Mr. Harbilas Sarda of Ajmer.

The Gupta Era : Mr. H. A. Shah of Bombay.

A Peep into Mediaeval Deccan : Mr. S. V. Venkataramanayyar of Tellichery.

The Vajji-Country and the Mallas of Pava: Mr. Harnandan Panday of Patna.

(12) The Philology and Prakrits Section was presided over by Prof. V. K. Rajwade. About forty delegates attended. The following papers were read with some discussion.

The Phonogenesis of the wide E and O in Gujarātī: Mr. N. B. Divatia of Bāndra (Bombay).

Apabhramśa Literature and its Importance to Philology: Dr. P. D. Gune of Poona.

Common elements in the Gujarātī and Gypsy Languages: Rao Bahadur Ramanbhai Mahipatram of Ahmedabad.

Dialects of the Burmese: Mr. L. F. Taylor of Burma.

FIFTH SITTING, FRIDAY, THE 7TH NOVEMBER 1919.

8-30 A. M. to 10-30 A. M.

17. This sitting was again a general one, where all the delegates and some visitors gathered in the pandal at 8-30 A. M. to listen to further papers reserved for a general sittting. Dr. Satis Chandra Vidyabhusana, the second Vice-President was in the chair, as Principal A. C. Woolner had to read his own paper. The following papers were read almost in extenso.

The Philological Argument for the upper Limit to the Age of the Rgveda: Principal A. C. Woolner of Lahore.

The Nakstras and Precession: Mr. G. R. Kaye of Simla.

The early History of the Gurjaras: Dr. R. C. Majumdar of Calcutta.

King Akbar and the Persian Translations from Sanskrit: Dr. J. J. Mody of Bombay.

Notes on the early sea-borne Commerce of Western India: Principal H. G. Rawlinson of Dharwar.

The Devanāgarī Recension of the Mahābhārata: Mr. N. B. Utgikar of Poona.

Five more papers were not read as the writers were not present; and the papers of Prof. V. K. Rajwade and

Dr. Satis Chandra Vidyabhusana were left to be read in the afternoon session.

An informal meeting for discussing the problems of the text and the illustrations of the *Mahābhārata* was held at 1 p. m. The following scholars attended:—Principal A. C. Woolner, Dr. Satis Chandra Vidyabhusana, Prof. D. R. Bhandarkar, Rai Bahadur Dayaram Sahni, Mahāmahopādhyāya Lakshman Shastri Dravid, Pandit Vasudevashastri Abhyankar, Prof. S. Kuppuswami Shastri, Prof. S. Krishnaswami Aiyangar, Dr. R. Zimmermann, Mr. V. P. Vaidya, Dr. T. K. Laddu, Mr. C. V. Vaidya, Prof. M. Hiriyanna, Prof. K. B. Phatak, Mr. G. R. Kaye, Principal Harley, Dr. S. K. Belvalkar, Prof. R. D. Karmarkar, Mr. N. B. Utgikar, Dr. P. D. Gune. Some other delegates also attended.

Discussion took place on the point raised by Mr. C. V. Vaidya, whether the *Mahābhārata* Editorial Committee could tamper (as he called it) with the text of the Epic. Instead of selecting the best reading and finding out interpolations, the best course, he thought, would be, to take the oldest Ms. of the epic and print it as text and show all deviations therefrom in the foot-notes. But the question was found to be rather late in the day, as the present position in regard to the fixing of the text was taken after careful consideration and previous consultation with scholars who ought to know. European scholars, both here and abroad, had also signified their approval of the method adopted. Secondly, it was thought that the text was already so often tampered with in order to enlarge it, that a fresh tampering (if it could be so called) on approved methods, and with a view to approximate the original text as far as possible, need not be felt amiss. No definite resolution, however, was felt necessary.

The question of the drapery was also discussed and scholars, especially Rai Bahadur Dayaram Sahni of the Archaeological Department, offered valuable suggestions, which Shrimant Balasaheb Pant Pratinidhi undertook to observe as far as possible.

SIXTH SITTING, THE SAME DAY,
2-30 P. M. to 4-30 P. M.

18. The conference resumed its sitting in the afternoon when Principal A. C. Woolner took the chair. Prof. V. K. Rajwade was then called upon to read his paper. He spoke on the important points in his paper on *Asurasya Mūyā*. After he had done, Dr. Satis Chandra Vidyabhusana followed with his paper on *Nāgārjuna, the earliest Writer of the Renaissance Period*.

After the reading of the papers was over, by 3-30 P. M., the Conference took up the consideration of the recommendations of the Committee appointed at the First Sitting

to consider the suggestions of scholars regarding the constitution of the Conference etc. The Committee sat after 5-30 P. M. on Thursday and after full deliberation made the following report.

"(1) That the invitation from Sir Asutosh Mookerjee, on behalf of the Council of Post-graduate Teaching of the Calcutta University, to hold the next session of the Conference at Calcutta, be accepted.

(2) That the next session of the Conference be held not earlier than 1921.

(3) That the Secretaries of the Conference should continue as Secretaries for the printing and publishing of the Proceedings and the papers of the Conference.

(4) That the Secretaries will select the papers to be published, after consultation with the Vice-Presidents and Sectional Chairmen.

(5) That in view of the Bhandarkar Institute having undertaken to organise the Conference, the Conference resolves that the surplus of the funds, if any, after meeting all the expenses of the Conference, be made over with all books, fixtures etc. to the Institute."

The adoption of the Report was moved from the chair and carried unanimously. The following recommendation of the Committee was also put from the chair and unanimously passed.

"(6) That while acknowledging the work being done by the several Governments, and Native States in the collection and preservation of ancient manuscripts, the Conference considers it desirable that arrangements be made by them for more thorough and rapid collection thereof to prevent permanent loss to the country of the valuable manuscripts."

The business of the adoption of the Report of the Committee being thus finished, the following resolution was proposed by Prof. D. D. Kapadia and seconded by Dr. I. J. Taraporewala.

"That the Conference expresses its sense of gratitude to the different Governments, States and Gentlemen who have
F. O. C. I. 10

helped the First Oriental Conference by money contributions, by lending rare articles for the exhibition and in other ways." It was carried unanimously.

Prof. S. Krishnaswami Aiyangar proposed and Prof. S. Kuppuswami Shastri seconded, a hearty vote of thanks to the Vice-Presidents for having ably conducted the session of the First Conference of its kind in India.

A vote of thanks to the Working Committee of the Conference and the Volunteers was proposed by Dr. Ganganath Jha and seconded by Mr. K. N. Dixit and was carried.

Dr. Satis Chandra Vidyabhusana then thanked the members of the Conference for having paid him the very high honour of electing him one of the Vice-Presidents, an event which he considered as the crowning piece of his life.

Principal A. C. Woolner, while announcing that the proceedings were over, said that until the moment of his arrival in Poona, he had scarcely expected that he would be called upon to perform such an honourable, but at the same time an onerous function. But he was thankful to all, that, with their help and co-operation, he had been able to carry the proceedings of the Conference—the first of its kind in India, to a successful conclusion.

Dr. P. D. Gune then expressed the joy of his colleagues and the Working Committee, that the task they had undertaken with enthusiasm, had come to such a happy end. He also sincerely thanked, on behalf of his colleagues and himself, all those, without whose co-operation the Conference would not have been what it was in the opinion of all, 'an unqualified success.'

The delegates then proceeded to the grounds of the Institute, where they were photographed in the distinguished company of Their Excellencies, who had specially come for that function, and the Chiefs of Sangli, Aundh and Miraj. After this was over, they were treated to a garden party by the members of the Institute. Distinguished scholars from different parts of the country were introduced to Their Excellencies, who had a kind word to say to every one of them.

The Delegates of the First Oriental Conference.





The delegates of the Conference. Their Excellencies, are seen on the right between the Chief of Aundh and Miraj.

APPENDIX A.

List of the Delegates of the First Oriental Conference.

These fall into the Patron, Vice-Patrons, and Ordinary Delegates. The names of the latter are given in the following order :—(1) representatives of the Universities, (2) representatives of learned Oriental Institutions, including Museums, (3) representatives of Governments and States and (4) those who were elected delegates by the Working Committee of the Conference.

Patron.

His Excellency Sir George Ambrose Lloyd, G. C. I. E.
D. S. O., Governor of Bombay.

*Vice-Patrons.**

Shrimant Appasaheb Patwardhan, Chief of Sangli.

Shrimant Balasaheb Pant Pratinidhi, Chief of Aundh.

Shrimant Bausaheb Patwardhan, Chief of Jamkhandi.

5 Shrimant Babasaheb Pant Sachiv, Yuvaraj of Bhor.

Sir Dorab Tata.

The Hon'ble Mr. Keshavrao, Hyderabad.

Mr. V. P. Vaidya, B. A., Bar-at-law, J. P., Bombay.

Mr. Hiralal Amratlal Shah, B. A., Bombay.

(1) Representatives of the Universities.

10 Dr. Ganganath Jha, M. A., D. Litt. Allahabad University.
Prof. M. H. Nasiri, M. A. ,

Mr. P. V. Kane, M. A., LL. M. Bombay University.

Dr. R. Zimmerman, Ph. D. ,

Prof. D. R. Bhandarkar, M. A. Calcutta University.

15 „ S. Khuda Bukhsh, M. A., B. C. L. ,

Dr. R. C. Majumdar, M. A., Ph. D. ,

* Those who contributed Rs. 100 each towards the expenses of the Conference. The Chief of Sangli contributed Rs. 150.

	Dr. I. J. S. Taraporewalla, B.A., Ph.D. Calcutta University.	
	Dr. Gaurangnath Banerji, M.A., B. L., Ph. D.	Council of Post-Graduate Teaching in
	Mr. Susilkumar Maitra, M. A.	Arts, Calcutta.
20	„ Radhakamal Mukerji, M. A. The Hon'ble Dr. A. Suhrawardi, M. A., Ph. D. „	"
	Principal Raghbir Dayal, M.A., M.O.L. Punjab University. „ A. C. Woolner, M. A.	

(2) *Representatives of learned Institutions.*

	Dr. P. N. Daruvalla, Ph. D.	Anthropological Society,
25	Rao Bahadur P. B. Joshi, F. R. G. S.	Bombay.
	Mr. R. P. Masani, M. A.	"
	„ S. S. Mehta, B. A.	"
	Dr. J. J. Modi, B. A., Ph. D.	"
	Mr. K. A. Padhye, B. A., LL. B.	"
30	„ J. A. Saldanha, B. A., LL. B.	"
	Dr. R. Zimmermann, Ph. D.	"
	Mr. R. D. Banerji, M. A.	Asiatic Society, of
	Dr. Harprasad Shastri, C. I. E., Ph. D.	Bengal.
	The Hon'ble Dr. A. Suhrawardy, M. A. Ph. D.	„
	Dr. Satis Chandra Vidyabhusana, M. A. Ph. D.	"
	Sardar K. C. Mehendale, B. A.	Bharat Itihasa Sam-
35	Mr. D. V. Potdar, B. A.	sodhaka Mandal,
	Rao Bahadur C. V. Vaidya, M. A., LL. B.	Poona.
	Maharajah Kumar Maninath	Birbhum Research
	Niranjan Chakrabutti	Society, Hetam-
	Mr. Harikrishna Mukerji	pur.
	„ P. V. Kane, M. A., LL. M.	Bombay Branch
	Dr. J. J. Modi, B. A., Ph. D.	of the Royal
	Mr. G. K. Nariman	Asiatic Society,
	„ V. P. Vaidya, B. A., Bar-at-Law, J. P.	Bombay.
	Dr. R. Zimmermann, Ph. D.	"
40	Mr. B. T. Anklesaria. M. A.	Canara Oriental Insti-
	Dr. D. Mackichan, M.A., D.D., LL., D.	tute, Bombay.

	Mr. R. P. Masani, M. A.	Cama Oriental Institute, Bombay.
	Dr. J. J. Modi, B. A., Ph. D.	"
	Mr. G. K. Nariman	"
	Sir Poonambalam Arunachalam Kt.	Ceylon Branch of the Royal Asiatic Society.
	Dr. P. E. Pierin	
	Mr. N. B. Divatia, B. A.	Gujarat Vernacular Society, Ahmedabad.
45	Prof. A. B. Dhruva, M. A., LL. B.	"
	Rao Badadur Ramanbai Mahipatram Nilkanth, B. A., LL. B.	"
	Prof. B. K. Thakore, B. A.	"
	Mr. S. K. Hodivalla, B. A.	Jarthoshti Din ni Khol Karnari Mandal.
	Dr. J. J. Modi, B. A., Ph. D.	
	Mr. G. K. Nariman	
	Mr. V. B. Alur, B. A., LL. B.	Karnatak Itihasa Mandal, Dharwar.
50	" R. K. Asundi, B. Sc., B. A.	"
	" B. N. Datar, M. A.	"
	" N. R. Deshpande, B. A.	"
	" R. S. Nargundkar, B. A., LL. B.	"
	Rajasabhabibhushan Karpur Shrinivasrao, B. Sc., L. C. E.	Karnatak Sahitya Parishad, Bangalore
55	Pandit Virupaksha Wodeyar	Lingayat Education Association, Dharwar.
	Mr. K. A. Ghaswalla, Bar-at-Law.	Literary and Philosophical Club, Poona.
	Prof. R. P. Patwardhan, M. A.	
	Mr. M. B. Pithawalla, B. A. B. Sc.	"
	Prof. B. K. Thakore, B. A.	"
	Mr. C. R. Krishnamacharlu	Nellore Progressive Union, Nellore.
60	,, K. A. Viraraghavachariar	
	Pandit G. V. Phadke	Sanatan Dharma Sabha, Ahmednagar.
	Pandit Mangalramji Sharma	Sanskrit Sabha, Etawah.

Dr. Gauranganath Banerji, Sanskrit Sahitya Pa-
M. A., B. L., Ph. D. rishad, Calcutta.

Mr. G. K. Chandorkar, B. A., LL. B. Satkaryottejaka Sa-
bha, Dhulia.

Mr. D. G. Padhye, M. A. Students' Literary and
65 „ G. B. Vaidya, B. A. Scientific Society,
Bombay.

(3) *Representatives of Museums.*

The Curator Barton Museum,
Bhavnagar.

Mr. J. S. Kudalkar, M. A., LL. B. Central Library, Ba-
roda.

Prof. D. R. Bhandarkar, M. A. Indian Museum, Cal-
cutta.

The Curator King Edward Mu-
seum, Bhopal.

Mr. G. V. Acharya, B. A. Watson Museum, Raj-
70 „ D. B. Diskalkar, M. A. kot.

(4) *Representatives of Governments and Native States.*

Prof B. R. Arte, M. A. Government of H. H.
„ C. V. Rajwade, M. A., B. Sc. the Gaekwad, Baroda.

Mahāmahopādhyāya Lakshman Government of Ben-
Shastri Dravid gal.

Principal A. H. Harley, M. A. „

75 Dr. Musharraf-ul Haq, Ph. D. „

Shams-ul Ulama Mir Muhammad „

Mahāmahopādhyāya Pramothonath Tarkabhusan „

Mahāmahopādhyāya Dr. Satis Chandra Vidyabhusana, M. A. Ph. D. „

Shams-ul Ulama Mufti Muhammad Abdulla Tonki „

„ „ Abu Nasr Muhammad Waheed, M. A. „

80	Prof. H. B. Bhide, M. A. LL. B. Mr. K. A. Enti, B. A. LL. B. ,, J. S. Gambhir, B. A. ,, J. J. Kania, B. A.	Government of the Bhavnagar State. " " "
85	Prof. C. Duroiselle Mr. Taw Sein Ko, C. I. E.	Government of Burma.
	Prof. G. S. Apte, M. A., B. Sc. Prof. A. Khan Saqib, M. A.	Government of H. H. the Maharaja Scindia of Gwalior.
90	Mr. Abdul Haq, B. A. Prof. Jamil-ur-Rahman, M. A. 90 Meer Mahbub Ali Sahib Hakeem Muhammad Afzal Sahib Maulavi Sayyid Ghulam Hussain Munshi Fasil Maulavi Fazil ,, Sayyid Muhammad Mazhar Maulavi Fazil ,, Sayyid Mohammad Murtuza Maulavi Fazil 95 ,, Sayyid Mukhtar Ahmed Sahib Mr. G. Yazdani, M. A.	Government of H. E. H. the Nizam of Hyderabad. " " " " " " " " " " " "
95	Pandit Girdharlal Sharma ,, Ratilalji, B. A.	Government of the Jhalwar State.
100	Pandit Bisweshwarnath Reu	Government of Jodh- pur State.
100	Mr. R. Shrinivas Raghav Aiyangar, M. A. ,, C. P. Venkataram Aiyar, M. A., L. T. ,, S. V. Venkatesvar Aiyar, M. A., L. T. ,, R. Krishnamachariar Rao Saheb H. Krishna Shastri, M. A.	Government of Madras. " " " " "
105	Prof. S. Kuppuswami Shastri, M. A. Muhammad Naimur Rahman Sahib Bahadur, M. A. Diwan Bahadur L. P. Swami Kannu Pillai, M. A., LL. B., Bar-at-Law, I. S. O. Mr. S. Subba Rau, M. A.	" " " " " "

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|-----|---|--|
| | Prof. M. Hiriyanna, M. A. L. T. | Government of H.
H. the Maharaja |
| 110 | Mr. R. Shamashastri, B. A. | |
| | Principal C. Venkataramanaiya | of Mysore. |
| | Mr. R. Narasimhachar, M. A. Director of | |
| | Archaeology. | |
| | Munshi Ziaul Hasan Alavi, M. A. | Government of the
United Provinces. |

(5) Delegates elected by the Working Committee.

- Prof. K. V. Abhyankar, M. A., Ahmedabad.
 115 Mr. S. V. Abhyankar of Poona.
 Pandit Vasudevashastri Abhyankar, Poona.
 Mr. M. K. Acharya, B. A., Madras.
 „ N. S. Adhikari, M. A., Gandevi.
 „ C. D. Advani, B. A., LL. B., Hyderabad, Sind.
 120 Prof. S. Krishnaswami Aiyangar, M. A., Madras.
 „ R. Swaminath Aiyar, B. A., Madras.
 Mr. V. Natesh Aiyar, M. A., Lahore.
 „ J. L. Allen, Sindh.
 „ M. A. Ananthalwar, Madras.
 125 Principal R. G. Apte, B. A., Poona.
 „ R. N. Apte, M. A., Kolhapur.
 „ V. G. Apte, B. A., Poona.
 Pandit V. V. Apte, Ratnagiri.
 Mr. R. B. Athavale, B. A., Ahmedabad.
 130 „ Shwe Zan Aung, B. A., Kyanktan.
 „ S. Bakarali, B. A., Poona.
 Prof. Abdul Bari, Dharwar.
 Mr. Muhammad Beg Sahib, Hyderabad, Deccan.
 Dr. S. K. Belvalkar, M. A., PH. D. Poona.
 135 Mr. H. J. Bhabha, B. A., Bombay.
 Prof. R. G. Bhadkamkar, M. A., Bombay.
 Prof. N. K. Bhagwat, M. A., Bombay.
 Dr. V. V. Bhagwat, L. M. & S., Poona.
 Mr. A. S. Bhandarkar, M. A., Poona.
 140 Dr. P. R. Bhandarkar, L. M. & S. Indore.
 Principal G. C. Bhate, M. A., Sangli.
 Mr. H. R. Bhatheja, B. A. (Oxon.), M. A. (Bom.), Pat.
 „ R. K. Bhide, B. A., Nasik.
 Pandit Bhimacharya, Bombay.

- 145 Mr. M. R. Bodas, M. A., LL. B., Bombay.
 „ Mahima Niranjana Chakrabarty, Calcutta.
 Sardar Y. M. Chandrachuda, Poona.
 Mr. C. A. Chavan, Poona.
 „ E Clements, I. C. S., Dharwar.
- 150 Hon'ble Mr. J. G. Covernton, M. A., Poona.
 Prof. N. G. Damle, M. A., Poona.
 „ F. C. Davar, M. A., LL. B., Bombay.
 Mr. D. D. Dave, B. A., Gandevi.
 „ H. K. Deb, M. A., Calcutta.
- 155 Prof. T. K. Deolalkar, M. A., Dharwar.
 Mr. S. M. Desai, Navsari.
 Prof. D. B. Devadhar, M. A. Poona.
 Rao Bahadur K. B. Deval, Sangli.
 Mr. K. N. Dixit, M. A., Lucknow.
- 160 „ K. S. Dixit, B. A., Poona.
 Prof. K. N. Dravid, M. A., Sangli.
 Mr. N. H. Shastri Dravid, Indore.
 Dr. G. Dubreuil, D. Litt. (Paris), Pondicherry.
 Mr. M. Firozuddin Khan, Gulburga.
- 165 Prof. A. B. Gajendragadkar, M. A., Dharwar.
 Pandit S. D. Gajendragadkar, Bombay.
 Mr. T. D. Gajra, B. A., Shikarpur.
 „ M. B. Garde, B. A., Gwalior.
 Prof. D. R. Gharpure, M. A., B. Sc., Poona.
- 170 Mr. M. Ghose, M. A., Patna.
 „ A. G. Ginvardhana.
 Hon'ble Divan Bahadur K. R. Godbole, M. C. E., Poona.
 Mr. P. R. Godbole, B. A., Poona.
 Mr. P. K. Gode, M. A., Poona.
- 175 „ G. K. Gokhale, M. A., Dharwar.
 „ L. R. Gokhale, Poona
 Dr. V. C. Gokhale, L. M. & S., Poona.
 Dr. P. D. Gune, M. A., Ph. D., Poona.
 Mr. B. G. Gunjikar, Dharwar.
- 180 „ Y. R. Gupte, Poona.
 Mahāmahopādhyāya Hāthibhai Harishankar Shastri
 Jamnagar.
 Mr. C. Hayavadana Rao, B. A., Bangalore.
 Sardar Abasaheb Hetlikar, Poona.

- Sardar Balasaheb Heblkar, Poona.
- 185 Rai Bahadur Hiralal, Wardha.
 Prof. V. K. Joag, M. A., Poona.
 Mr. C. V. Joshi, M. A., Ratnagiri.
 „ K. B. Joshi, Belgaum.
 „ K. G. Joshi, B. A., Poona.
- 190 „ R. B. Joshi, Poona.
 Mr. Vishvanath Shastri Joshi, Nasik.
 Mr. W. J. Joshi, M. A., Ratnagiri.
 „ G. P. Josyer, Bar-at-Law, Bangalore.
 „ G. N. Kale, Jalgaon.
- 195 „ S. G. Kale, M. A., Phaltan.
 Prof. G. G. Kanetkar, M. A., Jubbulpore.
 Mr. H. J. Kania, B. A., Bombay.
 Mr. P. D. Kanitkar, B. A., Bhor.
 Prof. D. D. Kapadia, M. A., B. Sc., Poona.
- 200 Mr. Motilal K. Kapadia, B. A., LL. B., Bombay.
 Prof. R. D. Karmarkar, M. A., Poona.
 Mr. M. V. Kathawate, B. A. LL. B., Wai.
 Krishnashastri Kavade, B. A., Poona.
 Mr. G. R. Kaye, Simla.
- 205 Dr. S. V. Ketkar, Ph. D., Nagpur.
 Mr. V. B. Ketkar, Poona.
 „ M. N. Khan, Poona.
 Rao Bahadur G. N. Khare, B. A., Poona.
 Dr R. V. Khedkar, L. M. & S., Poona.
- 210 Mr. R. T. Kirtane, B. A., LL. B., Poona.
 „ N. V. Kolhatkar, B. A., Bombay.
 „ C. R. Krishnacharya, Madras.
 „ P. D. Kulkarni, (Pandurangasharma), Poona.
 Pandit Lakshmipathi Shastri, Pithapuram.
- 215 Prof. Narendranath Law, Calcutta.
 Mr. A. M. Lokhande, Poona.
 „ G. B. Makoday, Indore.
 Dr. Harold H. Mann, D. Sc., Poona.
 Mr. G. S. Mavlankar, Baramati.
- 220 „ Balwantrai M. Mehta, Bhavnagar.
 Prof. N. D. Minocher Homji, B. A., Poona.
 Mr. V. V. Mirashi, M. A., LL. B., Nagpur.
 .. P. P. Mitragotri, Dharwar.

- Mr. B. L. Modak, L. C. E., Poona.
225 „ A. G. Mundle, Yeotmal.
Prof. R. K. Mukerjee, M. A., Mysore.
Sardar Abasaheb Muzumdar, Poona.
Mr. Jamshedji Dadabhai Nadershah, Bombay.
Purushottam Shastri Nanal, Poona.
230 Mr. H. Narainrao, Bombay.
„ M. A. Narayanshastri, Bangalore.
„ P. V. Narsingrao, Bangalore.
Mr. Gaurishankar Ojha, B. A., Ajmer.
„ M. P. Oka, Poona.
235 Pandit Bhimacharya S. Ottamgadkar, Bombay.
Dr. G. S. Palsule, Poona.
Mr. Harnandan Panday, B. A., Patna.
Prof. V. G. Paranjpe, M. A., LL. B., Poona.
Hon'ble Mr. R. P. Paranjpye, M. A., B. Sc., Poona.
240 Rao Bahadur D. B. Parasniv, Satara.
Mr. R. C. Parikh, B. A., Bombay.
Prof. K. B. Pathak, B. A., Hubli.
Pandit Shridharshastri Pathak, Poona.
Prof. M. T. Patwardhan, M. A., Poona.
245 Mr. R. V. Patwardhan, B. A., LL. B., Poona.
„ Laxmanrai Prasad, Calcutta.
„ P. E. Percival, I. C. S., Poona.
Sardar Babasaheb Purandare, Poona.
Mr. G. K. Puranik, M. A., Belgaum.
250 Pandit Rangacharya Raddi, Poona.
Sardar Y. T. Rajmachikar, Poona.
Prof. V. K. Rajwade, M. A., Poona.
Pandit V. Ramchandracharya, Nellore.
Mr. Ramgopal, Bár-at-Law, Bangalore.
255 „ G. V. Ranade, Poona.
Prof. R. D. Ranade, M. A., Poona.
Mr. S. V. Ranade, Poona.
„ T. V. Ranade, Poona.
„ V. V. Ranade, Poona.
260 „ Y. V. Ranade, Poona.
„ P. R. Rangraj Shastri.
Principal H. G. Rawlinson, M. A., Dharwar.
„ Sardaranjan Ray, M. A., Calcutta.

- Rai Bahadur Dayaram Sahni, M. A., Patna.
- 265 Mr. G. E. Saklatwalla, Bombay.
 ,, Harbilas Sarda, B. A., LL. B., Ajmer.
 ,, V. S. Saravte, B. A., LL. B., Indore.
 Dr. N. G. Sardesai, L. M. & S., Poona.
 Pandit Appashastri Sathaye,
 270 Mr. V. V. Sathaye, B. A., Poona.
 ,, S. N. Sathe, Poona.
 Secretary, Sk. Pustakonnati Sabha, Etawah.
 Mr. S. S. Setlur, B. A., LL. B., Bombay.
 ,, M. Shahidullah, M. A., Calcutta.
- 275 Prof. A. K. Shaikh, M. A., Bombay.
 Mr. A. K. Sharma, Patiala.
 Prof. M. G. Shastri, M. A., Poona.
 Mr. R. A. Shastry, Baroda.
 Pandit Hari Krishna Telang, M. A., Jubbulpore.
- 280 Pandit Vasudevashastri Shedenikar, Poona.
 Dr. P. V. Shikhare, L. M. & S., Poona.
 Mahatma Shridatta Lakshraj.
 Prof. C. S. Shrinivasachar, M. A., Madras.
 Mr. V. S. Shrinivasan, Madras.
- 285 Pandit S. V. Shriramshastri, Bezwada.
 Prof. K. N. Sitaram, M. A., Kullidaikurichy.
 ,, K. Sitaramaiya, B. A., Vemur.
 ,, V. V. Sowani, M. A., Meerut.
 Mr. G. Somanna, Nellore.
- 290 „ S. Subbarao, M. A., Madras.
 Pandit Vangwei Subbarao, Pithapuram.
 Dr. V. A. Sukthankar, Ph. D., Indore.
 Mr. T. Suryanarayana Rao, Kovur.
 Mr. V. B. Takalkar, M. A., Poona.
- 295 Mr. L. F. Taylor of Burma.
 ,, R. G. Terigundi, M. A., Dharwar.
 Pandit N. Tirumalachariar, Bangalore.
 Mr. K. Tirumalarao, B. A., L. T., Aurangabad.
 ,, S. A. Tivari, Hyderabad.
- 300 Mr. J. R. Tullu, B. A., Indore.
 Dr. J. M. Unwala, B. A., Ph. D., Bombay.
 Mr. W. G. Urdhvareshe, B. A., Indore.
 ,, N. B. Utgikar, M. A., Poona.

- vi. Durgaprasad V. Vaidya, Bombay.
305 Prof. P. L. Vaidya, B. A., Sangli.
Mr. K. S. Vakil, B. A., Poona.
Mr. Gaurishankar G. Varma, Bar-at-Law, Ajmer.
Prof. S. Varma Shastri, M. A., Shrinagar.
K. Venkatachali Shastri, Bijapore.
310 „ A. K. Vesawewala, B. A., Bombay.
Pandit B. Vidyabhushan, Calcutta.
Sardar Balasaheb Vinchurkar, Poona.
Prof. S. V. Visvanath, M. A., L. T., Trichinopoly.
Mr. B. Vyasrao, B. A., Lt., Aurangabad.
315 Mr. V. V. Waikar, Surat.
Prof. A. G. Widgery, M. A., Baroda.
Rev. Widurupola Piyatissa, Dhanuskoti.
Mr. Apparaju Wodeyar, Dharwar.
„ S. K. Wodeyar, Dharwar.
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APPENDIX B.

An alphabetical list of the Institutions, Governments, and persons, who lent exhibits for the Exhibition in connection with the First Oriental Conference, Poona. The more important exhibits only are mentioned.

(1) *The Andhra Pariśodhaka Mahāmaṇḍala*, Pithapuram, sent coins, copperplates and some photos. The following were the most interesting of them.

(a) A copperplate grant of the Reddy dynasty. Date 1400 A. D.

(b) Fifteen old coins found while digging, and seven new coins, of the South Indian dynasties of kings.

(2) *The Archaeological Museum*, Madras, sent (a) sets of copperplate-grants, (b) five caskets from Bhattiprolu reliquaries and (c) fifteen sets of coins.

(a) Copperplate-grants of (1) the Calukyan, (2) Ganga, (3) Cola, (4) Pallava, (5) Pāṇḍya, and (6) Vijayanagar dynasties.

(b) Two reliquaries from the first Bhattiprolu casket and one each from the second and the third.

(c) Punch-marked coins, Buddhist coins, and coins from several South Indian Dynasties like the Kadamba, the Ganga, the Cola, the Pāṇḍya etc. There were also numerous gold coins from Kodur.

(3) *The Bhan-larkar Oriental Research Institute*, Poona, lent (a) birch-bark, (b) palm-leaf, and (c) paper manuscripts and (d) an old astronomical instrument. The more important only of these are mentioned below.

(a) A birch-bark manuscript of (1) the *Rgveda* in Śāradā characters, an old script of Kashmir. This MSS. was used by Max-Müller for his edition of the *Rgveda*, and bears ample traces of that scholar's work in the form of marginal notes and marks. Another birch-bark Ms., of (2) the Śākun-

talā, also in Śāradā script, was procured for Government by Dr. G. Bühler along with the above one. This is evidently a valuable recension of the Śakuntalā. The birch-hark in both the cases appears to have been specially treated and being very thin, is written only on one side. Two such leaves are now pasted together back to back, in order that the crumbling process, which has already set in, might not develop rapidly.

- (b) Among the palm-leaf MSS. the oldest and therefore the most important were (1) *Viśeṣāvaśyakabhbāṣya* and (2) the *Viśeṣāvaśyakacūrṇi*, both belonging to the sacred literature of the Jainas.
- (c) Of the paper MSS., (1) the *Agnivesya Rāmāyaṇa* is about five hundred years old; and (2) the *Bhāgaratapurāṇa* is profusely illuminated in the early Mogul style of painting.
- (d) The astronomical instrument was procured for Government by Sir R. G. Bhandarkar, and is now being worked up by Mr. G. R. Kaye of Simla.

(4) The *K. R. Cama Oriental Institute*, Bombay, sent five exhibits in all, some of them very valuable.

(1) *Ijasne ba Maini*, a Sanskrit translation of Yasna, (2) *Kanoou-e-Masoudi*, (3) *Jog Bashust*, a Persian translation of the *Yoga Vāsiṣṭha*, (4) five chapters of the *Mahābhārata* and the (5) *Ocean of Knowledge*.

(5) *The Central Library*, Baroda, sent thirty MSS., on palm-leaf and paper, in Sanskrit, Marathi and Gujarati, and two copperplates.

- (a) (1) The *Mahābhārata* illuminated, (2) *Bhāgavata* illuminated, (3) *Vālmīki-Rāmāyaṇa* in Grantha characters, (4) *Bhagavadgītātparyanirṇayaṭikā*, (5) *Saundaryalahari*, illuminated, (6) *Jambusvāmi Rāsa*, (7) *Sadaya-Vatsacarita*, (8) *Ārādhana* and (9) *Cauraṅgasandhi*, two Apabhraṁṣa works.
- (b) Two copper-plates.

(6) Kumar Devendraprasada Jain of Arah sent photographic collections of the Jain temples, paintings and manuscripts.

The photos were of temples and caves at Khanda-giri, Udayagiri, with the Hathigumpha rock and inscription of Khāravela, Mathura pannel, statues of Jaina Tirthankaras etc.

(7) The Director of Archaeological Research, Mysore, sent some plates and a Campū.

(a) The Saragur plates of the Gaṅga dynasty, Kudagere plates of the Kadamba dynasty, Kadaba plates of the Rāstrakūta kings etc.

(b) A palm-leaf manuscript of *Indirābhyudaya Campū*.

(8) Mr. J. G. Gazdar, a well-known Art-collector of Bombay, sent three cloth-paintings.

(1) XIII century painting on cloth, depicting scenes from the *Rāmāyaṇa*, (2) XIV century painting, depicting Saraswati on a peacock and (3) XV century painting, depicting the sports of Kṛṣṇa and the Gopis.

(9) The Government MSS. Library, Madras, sent one hundred and twenty-four Sanskrit works on different subjects. A few typical ones are given below.

(1) *Rgvedavyākhyā* of Udgithācārya, (2) *Rgbhāṣya* of Skandasvāmin, (3) *Rgbhāṣya* of Venkatamādhava who is quoted by Vidāranya and Devarāja, (4) *Vādhūlakalpasūtra-Vyākhyā*, (5) *Āpastambaśulvasūtrabhāṣya*, (6) *Mahābhāṣayavyākhyā* of Bhartṛhari (the photographic copy of the only Ms. of the work in a German Library), (7) *Amoghavrtti*, a commentary on Śākatā-yana Sūtras, (8) *Arthaśāstravyākhyā* of Bhaṭṭasvāmin and (9) of Mādhabavarmaṇ, (10) *Bṛhaspatiśītra* supposed to be older than the *Arthaśāstra*, (11) *Sāṅkhyaśaptatiśīkā* of Śāṅkarācārya, rare and hitherto unknown, (12) *Pātañjalayogaśūtrabhāṣyavivaraṇa* of Śāṅkarācārya, rare and hitherto unknown, (13) *Kaṇūdasūtrabandhana* of Harakīrka, who quotes Ānandagiri and is

quoted by Vidyāranya, (14) *Nyāyasūtravṛayākhyā* of Apārādityamahārāja, one of the best commentaries on Bhāsarvajña's *Nyāyasūtra*, (15) *Nītitatvāvirbhāva* of Cidānanda, a Mīmāṃsaka who differs both from Kumārila and Prabhākara, (16) *Nyāyakuliśa* of Vādi-hamsāmbudācārya, uncle and preceptor of Deśikācārya, (17) *Spandanirṇaya* of Kṣemarāja, a pupil of Abhinavagupta, (18) *Traivikrama*, a drama with no characters except the Naṭī and the Sūtradhāra (19) *Bhimaparākrama* of Śatānandasūnu, an old drama, quoted in the Śārṅgadharapaddhati, (20) *Padmaprūbhṛtaka* of Śūdraka and (21) *Ubbhayābhisārikā*, two rare Bhāṇas, (22) *Dhūrtaviṭasāmīvāda* of Isvaradatta, mentioned by Bhoja, (23) *Daśarūpakavyākhyā* of Bhaṭṭanṛsiṁha, (24) *Aumāpataṁ* an old treatise on music, (25) *Mānasūtra* and (26) *Āñśumadbheda*, two works on agriculture, (27) *Mṛḍānītantra*, a work on alchemy, (28) *Candrābharaṇahorā* of Yavanācārya, quoted by great writers on Astrology ; and some Telugu and Malayalam works etc.

(10) *The Government Oriental Library*, Mysore, sent copies in Kannada characters of seven old MSS. of which the following were most important.

(1) *Bṛhadyajurvidhāna* of Kātyāyana, (2) *Vaikhānasa Kalpasūtra*, (3) *R̥garthadīpikā* (first Aṣṭaka) by Mādhavācārya, son of Veṅkatarāya, (4) *Āyurvedasūtra* with Yogānanda's commentary.

(11) *The Gurukulāśarma*, Bezwada, sent coins from Nepal, Ratlam, Nizam's State, Travancore etc., of the modern period.

(12) *Dr. Musharraf-ul-Haq* of Dacca brought some rare articles, scrolls and pictures.

(1) An authentic miniature portrait of *Abuzzafar Muhammad Bahadur Shah II*, (2) The *Quran*, a marvellous and artistic manuscript of the holy *Quran*, written on a scroll of paper, 10'-5" × 1"-18", in a most microscopic Nastali character. The whole weight is less than a tola. It is stated that Em-
F. O. C. I. 12

peror Shah Alam used to keep it in his head-gear. But there is nothing written on the manuscript itself. (3) *Kulliyat-i-Sadi*, a beautiful and illuminated copy of the complete works of Sadi. It was once preserved in the Imperial Library of Aurangzeb and was probably presented to him in the 31st year of his reign. (4) *Hal-namah*, a Masnavi by Arefi. It is an allegory in which the ball and the bat are personified as types of mystic love. It was transcribed in A. H. 1000 by Khandan, who was the court calligrapher of the Emperor Akbar. (5) *Timurnamah-i-Hatefi*, a Masnavi on the warlike exploits of Timur. A very neatly written copy. Date A. H. 972. Bears two seals of Muhammad Quli Qutub Shah and Jamshid Qutub Shah, Kings of Golkonda. (6) *Shahnamah*, the famous epic poem by Firdausi, most profusely illuminated and illustrated. Parts II and III are written in the most excellent Nastaliq, probably in the tenth century A. H. (8) *Jamih-ul-Hakayat*, a famous collection of historical tales and anecdotes by Muhammad Aufi. The oldest and the best copy extant. Profusely illuminated and illustrated with scenes from Natural History in its earlier part, and containing a few good pictures. Dated A. H. 843. (9) *Tuzuq-i-Timuri* of Alfaquihi; this is a continuation of the history of Tamarlane and his ancestors. An extremely rare work. Transcribed for the Emperor Shah Alam in A. H. 1191. (10) *Fursnama*, an illustrated treatise on farriery, translated from Sanskrit by Abdulkhan Bahadur Firoz Jung. This copy was transcribed at Kabul, A. H. 1082, twenty-eight years after the death of Firoz Jung. (11) *Divani-i-Sail* an autograph copy of the poet, written in the most marvellous and excellent running hand. (12) *Bostani-i-Sadi*, the well-known poem, of which this is a most magnificent copy written in the hand of Shah Mahmud Nashapuri. Dated A. H. 958. Contains a few sketches of pictures. (13) *Diwan-i-Hassan Dihlawi* one of the most complete and clearly written copies of the poems of Hasan. Dated, A. H. 951. (14) *Taswirat-i-Raymala*, an album illuminated by seventeen

beautiful groups of figures of Gouache painting in a variety of bright colours, attitudes and surroundings. Representing conventional symbols of the well-known personifications of Indian pitches. Early 12th century A. H.

(13) *The Indian Museum, (Archaeological Section,) Calcutta*, sent the following.

- (a) Bhita seals:—(1) Kālesvaraḥ priyatām, (2) Bhūta-kasa, (3) Sahijitiyenigmaśa, (4) Na (m) di (below Sastika), (5) Sri Vindhya bedhana Mahārājasya, Maheśvara Mahāsenātiṣṭha Rājyasya Vṛṣadhva-jasya, Gautamiputra sya, (6) Om Sri Ranasi(m)haḥ, (7) Sealing with device only, Symbol meaning Kaśpapura or Multan, (8) Seal with perforated handle at top-Inscription-Raga, Symbol-Trisula, (9) Seal-die with perforated top, Inscription Jitam-monoratha, Symbol-Star.
- (b) Basrah seals:—(1) Āmrātakeśvara, (2) Mahārājā-dhirāja Śri Chandragupta, Patni Mahārāja Śri Govindagupta, Mātā Mahādevī Śri Dhruvasvāminī, (3) Śri Vishnupadasvāmi, (4) Śri Ghatothkacha-guptasya, (5) & (6) Yuvarājapādiya Kumārāmātyā-dhikarana.

(14) *The Karnatak Itihāsa Mandala, Dharwar*, sent copper-plates, MSS. etc. of which the following were important.

- (1) Copperplate of the Kadamba age, (2) Copperplate of the Vijayanagar age, (3) Cāmuṇḍarāya-purāṇa, (4-5) Two beautiful carving specimens on Tādāvali, (6) Harivamśapurāṇā, a Jain work by Mangarasa.

(15) *Srimant Balasaheb Pant Pratinidhi* sent some exhibits, of which the following were interesting both from the artistic and the calligraphic points of view.

- (1) A manuscript of the *Saptasati*, beautifully written in golden ink and profusely illuminated, believed at least to be a couple of centuries old. (2) A manuscript of the *Quran*, with Arabic and Persian text written simultaneously one below the

other, nearly four hundred years old, bought at Bijapur at a cost of Rs. 400/-.

(16) The *Patna museum* lent (a) prehistoric antiquities, and (b) historic antiquities.

(a) Prehistoric antiquities; a scraper, a borer, arrow- and spearheads, a knife, a flake, axes, a bone-hammer, battle-axe with double head, bracelets, a bronze-bell etc.;

(b) Silver punch-marked coins of the Maurya period, Kṣatrapa and temple-seals, Gupta seals etc.

(17) The *Provincial Museum, Lucknow*, sent several articles like (a) castes of ancient statues and architectural decorations, coins, seals and edicts, (b) estampages of certain inscriptions and (c) photographs.

(a) Among the casts of coins were those of (1) Vima Kadphises, (2) Kanis̄ka, (3) Huviṣka, (4) Samudragupta, (5) Vāsudeva, (6) Kumārapāla etc., (7) golden coins of Kumāragupta, Pauragupta, Akbar, Jahangir etc.

(b) Among the estampages were those of the Mukhari Inscription, and the Kudarkot Inscription etc.

(c) The photos were of Jain, Buddhist and Hindu sculptures.

(18) The *Sardar Museum, Jodhpur*, sent (a) gold, silver and copper coins, (b) old paintings and (c) reprints of Inscriptions.

(a) Gold coins of Vāsudeva, Huviṣka, Samudragupta, Kumāragupta; silver coins of Azas, Menander, Kumāragupta, Jahangir etc; copper coins of Diomedes, Mahipāla, Somaladevi etc.

(b) Paintings about the history of the Kṣatrapa, Gupta, Paramāra, Kalacūri, Pāla, Sen and other dynasties.

(c) Reprints of Inscriptions of Udayāditya, Pratāpa-simha etc.

(19) Mr. V. P. Vaidya, B. A., Bar-at-Law, J. P., lent MSS. and gold, silver and punch-marked coins.

(a) MSS. *Virasimhāvalokana*, *Ātreyasamhitā* and an illuminated copy of the *Bhagavadgitā*.

(b) Old coins, (1) Gold mohur (Mataji) 1, (2) Silver coins of the last century, 13, (3) Punchmarked coins.

(20) The Watson Museum of Antiquities, Rajkot, sent (a) four copperplates, (b) MSS. and (c) seventy-six coins.

(a) Copperplates of Dharasena I, Gupta Samvat 207; of Dharaṇivarāha of the Chavda dynasty, Śaka 639.

(b) A MS. of *Māṇḍalika Kāvya*, an epic on the last Yādava King of Junagad, Ra Māṇḍalika, who was defeated by Sultan Mahmud in 1472.

(c) Gold coins of Antoninus, Augustus; silver coins of the Sassanian Gadheya, Rudrasena son of Rudradāman, Nahapāna, Caṣṭana, Rudradāman, Saṅghadāman etc.

APPENDIX C.

Donations from Governments, States and Private Individuals.

Indian and Provincial Governments.

(1)	Government of Bengal	...	...	1500
(2)	„ Bombay	...	...	1500
(3)	„ Burma	...	...	500
(4)	„ India	...	...	1000
(5)	„ Madras	...	...	1600
(6)	„ United Provinces	...	...	2000

Native States.

(7)	„ H. H. the Gaekwad of Baroda	...	...	1000
(8)	„ Bhavnagar State	...	...	500
(9)	„ Dhrangdhra State	...	...	500
(10)	„ H. H. the Holkar of Indore	...	...	500
(11)	„ Junagadh State	...	...	500
(12)	„ H. E. H. the Nizam of Hyderabad	...	...	1000
(13)	„ H. H. the Maharaja of Mysore	...	...	1000
(14)	„ The Chief of Aundh	...	...	100
(15)	„ The Chief of Jamkhandi	...	...	100
(16)	„ The Thakore Saheb of Limbdi	...	...	250
(17)	„ The Chief of Sangli	...	...	150
(18)	„ The Yuvaraja of Bhor	...	...	100

Private Individuals.

(19)	The Hon'ble Mr. J. G. Covernton M. A., C. I. E	...	...	...	50
(20)	The Hon'ble Mr. Keshavrao of Hyderabad	...	...	...	100
(21)	Mr. H. A. Shah B. A.	...	...	...	100
(22)	Sir D. J. Tata	...	...	...	100
(23)	Principal J. R. Tullu B. A.	...	...	...	50
(24)	Mr. V. P. Vaidya, B. A., BAR-AT-LAW J. P.	...	...	...	100

Appendix D.

Statement of Accounts of the Conference, as passed at a meeting of the Working Committee on 27th June 1920.

No.	Particulars of Income.	Amount.	No.	Particulars of Expenditure.	Amount.
1	Donations from Governments Native States and Private Individuals ...	13870 0 0	1	Printing charges ...	1449 2 0
2	Delegates fees ...	1355 0 0	2	Motors, Gharries and Coolie charges ...	1309 0 9
3	Visitors fees ...	131 0 0	3	Refreshments and Boarding charges of delegates and volunteers ...	2110 2 3
4	Miscellaneous ...	200 8 6	4	Labour and other charges for clearing the premises of the Institute ...	894 4 3
	Total...:	15556 8 6	5	Decoration of the Institute and premises ...	813 5 6
			6	Tent-hire, furniture &c. ...	735 7 0
			7	Exhibition charges ...	1031 0 0
			8	Post and telegram charges...	161 15 0
			9	Stationery ...	273 1 9
			10	Lighting ...	147 10 0
			11	Miscellaneous ...	617 2 6
				Total Expenditure... Balance...	9542 3 0 6014 5 6
	Details of Balance With the Bank With Dr. Gune	5819 14 9 194 6 9			Total... 15556 8 6
	Total...:	6014 5 6			

(Sd.) K. G. Joshi,
Hon. Treasurer.

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I.—Vedic.

Age of the Brāhmaṇas. Part I. By B. V. KAMESVARA AIYAR.

In the second stratum of Vedic literature (the *Yajus* and the *Atharva Samhitās* and the several Brāhmaṇas) we meet with lists of the nakṣatras of the Zodiac (27 or sometimes 28). That these nakṣatras marked the diurnal passage of the moon in the course of its heavenly circuit or revolution is plainly indicated by expressions like 'Aghāsu' (Rv. X 85, 13) 'Kṛttikāsu' (Taitt Br. I 1), which mean the days on which the moon is in conjunction with these asterisms. Though this nakṣatra Zodiac is primarily connected with the moon's path, it was also known to make the annual course of the Sun.

Now a Zodiac like this should have a starting point. The Brāhmaṇas state that the Kṛttikās are the first of these Zodiac asterisms, the first place being assigned to them in the several lists. Why were the Kṛttikās chosen as the starting point of this asterismal Zodiac?

It was thought by Weber and some other western Sanskritists that the same reason, which led to the recognition of Aśvinī as the first asterism in post-Greek Indian astronomy, might have led to the recognition of the Kṛttikās as the first in the period of the Brāhmaṇas. It is well-known that Aśvinī came to have the first place among the asterisms in the post-Greek system because it (or more accurately, the segment denoted by it) marked the commencement of the vernal equinox, when a solar calendar was adopted under Alexandrian influence (about the 4th or the 5th century A. D.). Similarly it was thought that the Brāhmaṇas assigned the first place to the Kṛttikās because at that time the Kṛttikās were observed to mark the vernal equinox.

There are serious difficulties in accepting the reason for the priority of the Kṛttikās. The Brāhmaṇas do not anywhere show a knowledge of the equinoxes or of a year commencing with the vernal equinox. Again it is the moon

that is generally connected with the nakṣatras. The analogy of Aśvinyādi cannot therefore apply.

Why then did the Brāhmaṇas give the first place to the Kṛttikās? Dr. Fleet suggested (and Prof. A. B. Keith welcomed the suggestion) that the priority of Kṛttikās was due solely to ritualistic considerations. Dr. Whitney held that the Brahmanavādins should have borrowed the scheme with the Kṛttikās at its head from the Babylonians.

I have tried to show that the nakṣatra scheme of Zodiac could not have been borrowed from Babylon for the simple reason that there is *nothing in common* between the Indian lunar Zodiac and the Babylonian solar Zodiac. You cannot borrow from a country what you cannot find there. It is for those who postulate a borrowing to show that the elements of the Indian Zodiac and the Brahmanic calendar are also found in the cuneiform literature of Babylon belonging to about 2300 B. C. This has not been so far attempted to be proved.

The reason why the first place is given to the Kṛttikās in the Vedic texts is to be found in the Vedic texts themselves. The Zodiac line does not run from east to west direct but lies partly to the north of the east point and partly to the south of it. One half of the asterisms of the Zodiac lies in the northern hemisphere of the heavens and the other half in the southern hemisphere. Now in the Brāhmaṇas as well as post-Vedic literature, the Deva-loka is located in the northern part of the heavens and the Yama-loka is located in the south. Therefore it is natural to find in the Brāhmaṇas that the asterisms in the northern portion of the Zodiac are treated as Deva-nakṣatras and those in the southern portion were known as Yama-nakṣatras. The asterisms in the northern half will revolve in the northern hemisphere to the south of the Deva-loka and those in the southern half will revolve to the north of the Yama-loka. This is exactly what is stated in Taittiriya Brāhmaṇa I 5,2. This is how the passage should be naturally understood and how it has been understood both by Sāyana and Bhṛṭṭa Bhāskara. Now the Kṛttikās are stated to be the first of the Deva-nakṣatras. This should and could be only with reference

to the order of the Moon's passage in the heavens. The passage would thus indirectly mean that the Kṛttikās marked the last. Another Brāhmaṇa passage Śat. Br. II 1,3 says the same thing directly—that Kṛttikās do not swerve from the last point while the other nakṣatras of the Zodiac lie either to the north or the south of this point. It has been attempted to show that these two passages have been correctly interpreted in this manner both according to tradition and according to the obvious rules of interpretation.

A third passage, though in a presumably supplementary portion of an Upaniṣad, Mait. Up. VI 14, also states that the Sun turns south from the Maghās, which would correspond to the Kṛttikās at the east point. Thus three Vedic passages are found to state directly or indirectly that the Kṛttikās were observed to be at the east-point at the time of the Brāhmaṇas. The Brāhmaṇas had to determine, for ritualistic purposes, the cardinal and the intermediate points of direction. It may be that the determination may not have been mathematically accurate. At any rate the Brāhmaṇas talk of the Sun turning north or south and the day on which the Sun so turned could be determined within an error of say four days. An error of 4 or 5 degrees in the determination of the cardinal points would not materially affect the accuracy of long periods like those we are dealing with.

It is true that the Brāhmaṇas do not appear to have been acquainted with, or recognised as important, the equinoxes. Nor is there any reference to a year commencing with the vernal equinox. But this can not prevent them from dividing their Zodiac into a northern and a southern half and locating the starting point of the asterisms at the east point. You can not say that simply because there is no reference to the equinoxes in the Brāhmaṇas, the theologians of this period could not have observed or noted that a certain asterism in their Zodiac was at the last point and others were to the north or the south of this.

Leaving a margin of 3 or 4 centuries for errors of observation, it may be safely concluded that the Brahmanic passages that locate the Kṛttikās at the last indicate

approximately that they were composed about 2,000 B. C.—an antiquity which scholars like Bühler (and even Whitney) considered necessary for the development of the different strata of Vedic literature.

Part II. Section I. The month and the year in the Brāhmaṇas.

(1) The month in general use at the time of the Brāhmaṇas was lunar and was named after the nakṣatra in or near which the moon became full. This was reckoned as 30 days, as the amāvāsyā (or pūrṇimā) occurred on the 30th day after the previous amāvāsyā (or pūrṇimā).

(2) The month began from the day after the amāvāsyā and ended with the next amāvāsyā. The term ‘amāvāsyā’ denoted not ‘the moment of new moon’ or a *tithi* or that part of the amāvāsyā *tithi* which was considered fit for the religious rites, (all this was to come later) but the civil day on which the moon was entirely invisible. The term ‘new moon’ is a misnomer as applied to amāvāsyā; the term in the English language denotes only the day *after* the amāvāsyā—the day when the moon becomes first visible after its total disappearance on the amāvāsyā. The misuse is perhaps partly responsible for the undilutedly novel theory of ‘amādi.’

The evidence for the amānta and against the pūrṇimānta is :

- (a) Rv. X 85,18, which states that the moon after completing the month is born again.
- (b) Taitt. Br. III 10, 1, where ritualistic names are given to the days *i. e.* of the month in their calendrical order.
- (c) The frequent use of the expressions “pūrva pakṣa” and “apara pakṣa” in all the vedic Śākhās.
- (d) Kaus. Br. XIX 3 which states that an amāvāsyā closes the last day of the year and that the sun turns north on the next day; and Kaus. Br. I 3 which states that an amāvāsyā is in the middle of a ṛtu.
- (e) Sat. Br. XI 1, 1 &c. which says that the amāvāsyā is the gate opening out into the new year and that

the amāvāsyā of Vaisākha coincides with Rohini (of course in the *prāyikārtha*) which can only be if the amāvāsyā of the month came after the pūrnimā.

(j) Taitt. Br. I 8,10,35 which states the amāvāsyā ends a month whereas the paurnamāsi ends only a half-month.

(3) Sāyaṇa and Mādhaba are of opinion that the pūrnimānta month is also contemplated in some Vedic texts. Two Vedic texts are adduced in evidence in the Kālamādhava. One of them that the term 'Kṛṣṇa-pakṣa' (itself a term of the post-Vedic period) is used before the term 'Śuklapakṣa' in an unidentifiable passage of the Ātharvanikas may be dismissed as not worthy of any serious consideration. The other Vedic text does state that some Brahmanavādins complete the 'month' with the paurnamāsi. But analogy and the context require that the word 'month' (māsa) should be here understood as denoting a Satra-month (known later as Śāvana month), the commencement and the end of which were determined not by the calendar month in use but by the opening Dīkṣā day for the Satra.

(4) There were 12 lunar months in the year which was also lunar. Once in every two years or three years, as occasion demanded, an additional or thirteenth month was added to the year, to adjust lunar years to the movement of the seasons (which are regulated by the position of the sun). No elaborate calculations were needed for purposes of such adjustment. If the Brahmanavādins went on inserting an additional month *only when* the difference between the lunar and the solar time needed such insertion, the adjustment would become approximately right and would become almost perfect in an exeligmos of 160 years.

(5) In popular language, the year was spoken of as consisting of 360 days from the Rgvedic period; but as there is no natural phenomenon (like the amāvāsyā or the sun's turning north or south) to mark the commencement or the close of such a year, this year could never have been employed for practical use. In the Samvatsara-Satra (an institution as old as some of the oldest parts of the Rgveda)

it was possible to employ this year of 360 days, as the commencement of the Satra depended on various considerations. This year was therefore known later as Sāvana year and the word 'māsa' was in connection with this, used for a group of 5 six-day periods without any reference to the beginning or the end of the calendar month then in vogue. For purposes of this thesis, the point worth remembering is that in the time of the Brāhmaṇas the calendar month was exclusively amānta, the pūrnimā which gave the name to the month occurring on the fifteenth day of the month and the amāvāsyā occurring on the last or the thirtieth day of the month and closing it.

Part II, Section II. Ayanas and Ritus.

The only passage in the Brāhmaṇas for determining the position of the winter solstice, as then obtained, is Kaus. Br. XIX 3 where it is said to coincide with Māgha amāvāsyā. Dr. Thibaut, either on the authority of Vināyaka and Ānarttiya or by some ratiocinatory process which is beyond my comprehension, understands Māgha amāvāsyā to mean that which fell 15 days before the full moon in Maghās. This would correspond to the position of the winter solstice in the Vedāṅga Jyotiṣa. Thus both would tally and support each other. The epoch of the Vedāṅga, from other (more or less accurate) date furnished in the work, would approximately point to 1000-1200 B. C. The age of the Brāhmaṇas also may be set down to 1000-1200 B. C.

But the Vedāṅga Jyotiṣa says that the season of Śīśira began with the winter solstice. This is not true to the seasonal changes of India. The view of the Brāhmaṇas is more correct, for the Brāhmaṇas state that the Phālguna full moon is the *mukha* or the first day of the year. This should be taken to mean that the Phālguna full moon was the first day of Spring. If so understood it would mean that spring commenced 45 days after the winter solstice; this would fit in with the course of seasons as they obtain in Northern India.

This is Dr. Thibaut's theory. I have tried to show that this theory is in conflict with several texts from the Brāhmaṇas. In the first place, the months in the Brāhmaṇas are

exclusively amānta ; or at any rate the evidence for a concurrent pūrnimānta is so slight and of doubtful validity that in the absence of sufficiently convincing reasons to the contrary, which neither the scholiasts Vināyaka and Ānartilya, nor Dr. Thibaut has given, Māgha amāvāsyā in the Kaus. Br. XIX 3 must be understood in the amānta sense ; if this is done, the year would commence on Phālguna Śukla-Pratipad from the winter solstice. The Brāhmaṇas also show that the first season of the year was Vasanta and therefore Spring would, conventionally, begin with Phālguna Śukla ! What then is the meaning of the statement in the Brāhmaṇas that Phālguna full moon (*i. e.* Phālguna 15) was the first day of the year ? The very passage (Sat. Br. VI 2, 2) that states that the Phālguna full moon is the first day of the year, explains in the same context that Phālguna pūrnimā is so called because it is the first of the three important days (*parvans*) of the first month of the year and that the other two *parvans*, the eighth day after the full moon and the fifteenth day after the full moon are also the first days of the year in the sense that they are the first *parvans* of their kind in the year. Moreover another Brāhmaṇa passage Sat. Br. II 1, 3 distinctly states that Vasanta, Grīṣma and Varsā are the three seasons of Uttarāyana and Śarad, Hemanta and Śisira are the three seasons of Dakṣināyana. It might be objected that this arrangement of the seasons is incorrect and would not accord with the course of the seasons in India. I have tried to show that this arrangement might be correct enough as a convention, that a convention which tries to express the seasons in terms of the lunar reckoning can be only approximately correct with a margin of a fortnight, that Śarad in the Brāhmaṇas, (unlike the notion that has crept into use after the Vedāṅga epoch) denoted the second and wetter half in the four-monthly period of rains, Varsā denoting the first half which might have included the heavy showers that often preceded the regular south-west monsoon by a fortnight, that having regard to the fact that Indian meteorology is still empirical in spite of recorded statistics, the Vedic texts which showed that Vasanta began from the winter solstice and Śarad from the summer solstice need not be absurdly untenable as a convention

Dr. Thibaut has considered only two points, one about Māgha amāvāsyā and the other about Phālguna full moon and his theory on this interpretation of these two terms and supported it by meteorological considerations. I have tried to show that there are Brahmanic texts which are in conflict with his interpretation of either term and that the correct procedure would be to understand from the Brāhmaṇas what their seasonal conventions were and see how far they might be reconciled with the seasonal changes in India instead of trying to deduce, without any reference to these texts, what the Brāhmaṇic conventions *should have been* from the complex and uncertain data afforded by current meteorology.

If the position I have tried to establish be conceded, the conclusion would be that the sun turned northwards on Phālguna Śukla-pratipad, that it is earlier *by one lunar month* than the Māgha Śukla-pratipad which coincides with the winter solstice according to the Vedāṅga Jyotiṣa, that therefore the Brāhmaṇas point to the coincidence of the summer solstice in the nakṣatra Maghāś, which correspond to the vernal equinox in the Kṛttikāś, that this would tally with the date derived from the statements about the positions of the Kṛttikāś in the Zodiac of the Brāhmaṇa period, and that the evidence of both these sets of astronomical data would give for the Brāhmaṇas a date which may be approximately fixed between 2000-2300 B. C.

Study of the Vedas. By GAURIDATTA SASTREE.

वेदशब्दनिरूपित्वकं तत्परायर्थादानां निरुक्तिः । वेदस्य लक्षणं तत्प्रमाणानि च । वेदानामर्थपारिज्ञानाय पठङ्गादीन्युपयुक्तानि तेषां निरुक्तिपूर्वकं तदर्थनिरूपणं च । वेदानां धर्मवृद्धावबोधनरूपं प्रयोजनं प्रदर्शितम् अनन्यलभ्यत्वात्तस्य । वेदाः केन प्रकाशिता इति कथनम् । अर्थज्ञानपूर्वकं वेदानां नित्यमध्ययनम् । अर्थाभिज्ञप्रशंसा अर्थानभिज्ञस्य निन्दा । वेदाननधीयानस्य भाग्यहानिः क्रुत्विक्तचतुष्टयप्रदर्शनैः वेदवतुष्टयनिरूपणश्च । सर्वसारभूतौ द्वौ मन्त्रो लोककल्याणाय पर्यन्ते निर्दिष्टौ । “समानो मन्त्रः समितिः समानो” इत्यादि ।

The Nighanṭu is not the Work of the Author of the Nirukta. By R. D. KARMARKAR.

In addition to the points noticed by Durga and Roth in this connection, the essay brings forward further evidence to prove that the author of the Nighanṭu is different from that of the Nirukta. The following words from the Nighanṭu and Yāska's explanation thereon are referred to. Talit, Āksānah, Āpānah, Viyātah, Ākhandala, Vavakṣitha, Vivakṣase, Vicarsānih, Viśvacarsānih, Mehanā, Śipre, Tūtumākrse, Śvātram, Dyumna, Tūrnāsa, Kṛtti, Saṁba, Śruṣṭi, Andha, Varāha, Svasarāni, Śaryā, Sina, Vayunam.

Evidence is also brought forward to show that the Nighanṭu is not the work of a single author.

Education in the Brāhmaṇas and Upaniṣads. By RADHAKUMUD MOOKERJI.

The paper deals with the types of the educational institutions indicated in the Upaniṣads, so as to show the precise character of the educational system and machinery evolved in ancient India for the spread of her learning and culture through the different and distant parts of the country in those remote, pre-mechanical ages. A brief reference has been incidentally made to the question: How far was Sanskrit a spoken language during the period or a medium of instruction and debate in learned societies?

Asurasya Māyā in Rgveda. By V. K. RAJWADE.

The word *asura* occurs about 105 times in the Rgveda. In about 90 instances it is used in a good sense, while the instances in which it is used in the sense of 'enemies' of Devas are only 1/7th of the whole. It means 'powerful, strong', and is applied to individual gods and gods in general and is only generic in character. In some cases, however, it is significant and purposeful as in those of Mitra, Varuna and Indra. When used about Indra, it shows physical strength, while in the case of Mitra and especially Varuna, it shows moral, punitive

strength. This has led some to believe that Varuna really is the great Asura, the prototype of Ahura Mazdah. I think, however, that such a conclusion is not warranted, as along with other gods he is *āsura* or *asuraputra*. In enforcing the moral law, he enforces the *Māyā*, i.e. the miraculous power, the thaumaturgy of *asura*. The Devas are called *divasputrāsah*, *mahasputrāsah*, *asurasya virāh*. In a list of Assyrian Gods published by Vincent Scheil, is mentioned Assar Mazaash which, the writer of the article on Ormazd in the Encyclopædia of Religion and Ethics thinks, is nothing but Ahura Mazdah of the Zoroastrians (Vol. 9 p. 568). I think the name is a mispronunciation of *asura mahas*. The words do not occur as a compound in the Rgveda which shows that they were compounded by the copyists. If the poets in the Rgveda had borrowed the name from Chaldea, as the Indian Aryans are said to have borrowed astronomy from that country, they would have retained the compound name. Whoever was the borrower, it is clear that the Chaldeans, the Indian Aryans and Zoroastrians were once neighbours. Perhaps they had a common religion and common gods, among whom Asura was the greatest. There happened a cleavage, however, between the Indian Aryans and the Zoroastrians at some unknown period of the world's history, of which the causes are unknown. Perhaps it was religious differences. Perhaps the Indian Aryans came to regard Indra as supreme deity while their neighbours clung tenaciously to Asura. Anyhow they began to revile each other's gods. The Zoroastrians degraded Indra into a minor, insignificant deity or as I think, transformed him into Angra Mainyu, the protagonist of Ahura Mazdah. The Devas, the followers of Indra, had to share the odium that came to be attached to the name of Indra. There commenced a campaign of mutual vilification and misrepresentation. Indra, who was turned into Satan, became an inveterate foe of Ahura and is called *asuraghna* in the Rgveda. The Zoroastrians exalted certain names such as *asura*, *manyu*, *aśa*, *gāthā* and degraded others. The Indian Aryans too adopted the same method. *Kavi*, which is used in an evil sense in the Avesta, was prefixed to the name of Devas and conveyed a good sense. The two races adopted

contrary customs with regard to burial, shaving and marriage.

But before the cleavage, all the gods were the sons of *asura* and were called *asura* patronymically. The name conveyed a good sense. *Asurya* meant strength, and *asuratva* was used in the sense of *Māyā*, thaumaturgy. All natural phenomena were miracles and the work of *asura*. Kings were complimented by prefixing *asura* to their names, or by use of the epithet instead of the names. This same supreme deity was perhaps called by various names such as *dyau*, *mahas* and *amṛta*, and the gods were *divasputrūsah*, *mahasputrūsah*, and *amṛtasya putrāḥ*. *Dyau* is Greek *Zeus*, *mahas* is Zoroastrian *Mazdah*, *asura-mahas* Chaldean *Assar Mazaash*. Whichever party or parties were the borrowers, they lived near one another. Greeks, Indian Aryans, Zoroastrians and Chaldeans were once neighbours. What was the region they occupied? Dr. Sir R. G. Bhandarkar says it was the northern portion of the plain between the Euphrates and the Tigris or Mesopotamia. If the Indian Aryans were borrowers, they must have had Greeks on one side, Chaldeans on another and Zoroastrians on the third, and when the cleavage came, they must have left the Zoroastrians in the rear and pushed on to the land of the five rivers.

Dr. Bhandarkar thinks that just as the *dasyus* were the aborigines of India, the *asuras* were aborigines of some other country, and as aboriginal races both were regarded with an evil eye by the Indian Aryans. It is my humble opinion that the *asuras* were the cousins of the Indian Aryans. In the *Sat. Br.* (13, 8, 2, 1) we have *devāścāsurāścobhaye prājā-pat�ā asmin lokeśpardhanta, te devā asurān sapatnūn bhrātr-vyānasmāllokādanudanta*. The *dasyus* were inhabitants or people of *daīhu* (Av. = province or country). This *daīhu* was perhaps the country of the Zoroastrians. Misrepresentation or vilification followed in the wake of their enmity. Originally of one stock, they quarrelled and parted irreconcilably. Worshippers of *asura* or *Ahur*, the Zoroastrians were nicknamed Asuras. Their speech is set down as barbarian, for the Avesta seems to be Sanskrit mispronounced. *Asura* is *Ahur*, *ahi* is *Azi*, *manyu* is *Mainyu*, the genitive termination

sya is *hya*, *Indra* is *Indhra* or *Angra*, *deva* is *Daeva*, *namah* is *nemo*, *asva* and *viśve* are *aspas* and *vispeṇ*. The grammatical forms are almost the same, only they are mispronounced either deliberately to make the cleavage permanent or because the speakers were uncivilized barbarians.

I have only one word about *mleccha* which is not a Sanskrit word. I have long thought it to be *Molech* or *Melech*, which originally meant 'King' and was the name of the supreme god of the Ammonites, hereditary foes of the Israelites. The speech of the Ammonites or worshippers of *Molech* or *Melech* sounded barbarous to the ears of the Indian Aryans. Any departure therefore from standardized Sanskrit was set down as *mleccha*. The Zoroastrians mispronounced vowels; they pronounced *r* as *ere*; they said *vererthra* for *vṛtra*, *perethīvi*, for *pr̥thvī*; *kratu* they call *khrathu*, *citra* and *putra* as *cithra* and *puthra*. The Indian Aryans were bound to call such speech *Mleccha*. Unintelligible or mispronounced speech is naturally barbarian to unaccustomed ears.

India was certainly not the home of the Rgvedic people. Words like *asura*, *pani* (Phoenician), *dasyu* point to a domicile other than India.

Māyā.

- 1 *Māyā* has the sense of *asuratva*. It means the creative power.
- 2 It means also 'thaumaturgy' or the power of working miracles. There is not much difference between 1 and 2.
- 3 In many instances it means 'wiles, tricks, tactics' which are employed both by Indra and his opponents.
- 4 In a few cases it means 'sorcery, witchcraft, magic.'
- 5 In two instances only it means 'illusion, appearance.'
- 6 In *asurasya māyā*, the *asura* is the supreme god of the Indian Aryans. He is the Assar Mazaash of the Chaldeans or Assyrians and Ahura Mazdah of the Zoroastrians. He cannot be identified with *Varuna*, notwithstanding the moral resemblance between Ahura Mazdah and *Varuna*. This *asura* em-

ploys *māyā* in creating the Universe and its several parts. All wonders of the world are due to that.

- 7 In Avesta the corresponding word is *mayā*, but the instances of its use are very few and very doubtful.

A Study in the Idea of Rudra. By S. D. SATAWALEKAR.

The oriental scholars state that "Rudra is the lightning and he is the god of storms." This is one of the many aspects of Rudra.

Vedic seers identify Rudra with Indra, Agni and Kāla. This identification is not meaningless; it is due to their valour, lustre and destructive power respectively.

Etymological meanings of Rudra are five—(1) speaker, (2) trouble-remover, (3) trouble-giver, (4) oppressor, and (5) weeper. Every derivation separates one word from the rest. It is a mistake to suppose that one word has got so many derivations.

There are at least five groups in the names of Rudra. (1) *The speaker group* includes a praiser, president, a minister, a congress and such other Rudras. (2) *The trouble remover* group includes, a doctor, a warrior, an army and its leader, a merchant or an artisan and such other Rudras. (3) *the trouble giver* group includes a murderer, a thief, a rogue, a cheat and such other criminal Rudras. (4) The fourth group comprises such Rudras as make others weep, as oppressors and punishers. (5) In the fifth group all kinds of weepers are included.

So all these groups cover the whole of the creation.

Every name of Rudra is governed by the word *namah* in the Rudra hymn. This *namah* means (1) salutation, (2) food, (3) a weapon, (4) a gift, (5) a sacrifice. These meanings are to be read with the above Rudra group.

There is "one and without a second" Rudra and there are innumerable Rudras. In those innumerable Rudras all the above five groups are included.

Besides these there are Rudras in animal kingdom also. Disease-producing germs are also called Rudras.

The Mention of the Mahābhārata in the Āśvalāyana Grhya Sūtra. By N. B. UTGIKAR.

The note is an attempt to examine some of the objections raised against the genuineness of the mention of the Mbh. in the ĀGS.

After detailing (§ 1-5) the treatment of the passage in the writings of Orientalists and its importance and the objections raised, the note proceeds to point out (§ 6-11) that the omission in some MSS. only of the word Mbh. is nothing else than what is known in textual criticism as "Homoeography". § 12 points out that the non-mention of the Bhārata and the Mahābhārata earlier in the ĀGS itself cannot be made a point against ĀGS, since the earlier passage enumerates works (and not authors, Rsis or Ācāryas), this enumeration being based on an older list such as e. g. is preserved in the Śatapatha Brāhmaṇa.

§ 13-15 consider the objections raised by a comparison of the similar list in the Śāṅkhāyana Grhya Sūtra. The objections are met by the argument that (1) Oldenberg is disposed to regard the particular sections of the Sān. Gr. Sūtra as later additions; and (2) it is also pointed out that the enumeration of two works only, viz. Sūtra, Bhāṣya in the midst of Rsis preceding and following in the Śāṅkh. GS text raises a strong presumption against the genuineness of their occurrence in that Sūtra.

In § 16 - 17 an attempt is made, on the basis of the tradition preserved by Śadguruśisya that Śaunaka was the Guru of Āśvalāyana, to substantiate the main contention that Āśvalāyana very probably knew the tradition of both a Bhārata and a Mahābhārata.

On the basis of the same authority and the statements contained in the Mahābhārata itself, it is made probable in § 18-20 that the Bhārata became the Mahābhārata about the time of Śaunaka.

In § 21 is shown how Śaunaka and Āśvalāyana stand on the borderland between the Vedic and the Sūtra period (both being the authors of parts of the Aitareyāranyaka and of Sūtra works), and how perhaps a new order of things was initiated by the Great War (supposing it were a historical event).

Finally it is hinted how indications are left which endow the reigns of the early four or five Paurava kings with peculiar significance from the literary and social point of view.

Gotra and Pravara. By C. V. VAIDYA.

1 Gotra according to all Sūtrakāras is the name of some descendant of one of the 7 Rsis viz. the Saptarsis (1) Jamadagni, (2) Bhāradvāja, (3) Vaśiṣṭha, (4) Viśvāmitra, (5) Kāsyapa, (6) Gautama, (7) Atri and (8) Agastya.

The Mahābhārata however preserves a śloka which states that originally the Gotras were four only, viz. Bhṛgu, Āṅgirasa, Kāsyapa and Vāsiṣṭha.

This seems to show that originally four stocks of Aryan families came to India and subsequently three more families viz. Viśvāmitra, Atri and Agastya came into India, of course in Vedic times, for these Rsis are also composers of Vedic Hymns.

2 What is Pravara? That is known, it is feared, to very few, even orthodox and learned Brahmins. The Śrauta Sūtras show that the Pravara consists of those Rsis in one's ancestry who are composers of hymns in the Rgveda.

3 These Pravaras are 49 in number, though the Gotras may be numbered by thousands. The Pravaras are the same all over India and among all Brahmins and Kṣatriyas. And they contain the names of many Rājarsis i. e. holy-Kings (Kṣatriyas) who have composed Vedic Hymns. It thus appears that the original Rsis are the progenitors of all Indo-Aryans, Brahmins, Kṣatriyas and Vaisyas alike.

The Nirukta and the Nighanṭu: their mutual relation.
By SIDDHESHWARA VARMA.

- 1 What is the Nirukta ?
 - 1 As a book, it is a commentary on the Nighanṭu.
 - 2 Derivation of the word Nirukta and the works where it first occurs.
- 2 What is the Nighanṭu ?
 - 1 Contents of the Vedic Nighanṭu.
 - 2 The number and the nature of the words given in the Nighanṭu.
- 3 Characteristic features of the term Nighanṭu.
- 4 Distinctive features of the Vedic Nighanṭu as contrasted with other lexicons.
- 5 The term Samāmnāya (the first word of the Nirukta)
 - (1) Its literal, primary and secondary significance.
 - (2) Its bearing on Yāska's authorship.
 - (3) Used with reference to the Nighanṭu, and signifying 'a traditional collection of Vedic words'. It shows that Yāska was merely the editor and not the author of the Nighanṭu.
 - (4) A passage from the Mahābhārata on the authorship of the Nighanṭu.
- 6 Conclusion :
The Nighanṭu is a Vedic lexicon, on which the Nirukta is a commentary.

Arya and Dasyu—A Chapter in Social History. By
S. V. VISWANATHA.

The Paper deals with the relations of the early aboriginal population of India with the immigrants—the Aryans. The subject has been dealt with in its social, religious, commercial and political aspects.

Arya and *Dasyu* are contrasted, one from the other as possessing distinct and special characteristics.

The *Dasyus* were the non-Aryan people of India distinct from the Aryans. The view that they were superhuman is controverted.

The relations in war of the two peoples. As a result there is the expansion of *Aryāvarta* at the expense of non-Aryan territory and the gradual reduction of the aboriginal population to the condition of serfs. The different senses in which the term *Dasyu* was used : people or tribe ; enemy and slave or serf.

The relations in peace—divided under social and religious—in agriculture and in commerce. The policy of give and take—fusion of the two. Social—The apparent conversion of the *Dasyu* to the Aryan fold and intermarriage between the two peoples indicated.

In the fields of agriculture and commerce the two appear to have mingled likewise. The Indian agricultural system was as much non-Aryan as Aryan and the sea voyages and relations with foreign lands were undertaken more by the former than by the latter.

It is suggested that there was the *gradual fusion* of the two races and the early processes in the making of India are traced in general.

The Philological Argument for an Upper Limit to the Date of the Rgveda. By A. C. WOOLNER.

This paper does not pretend to fix the date of the Rgveda. Need of resisting *bias* towards an earlier date simply because it is more remote, or towards a later date, simply because it is nearer dated events.

Statement of the Argument : Comparison of Avestan with Vedic language proves that Aryans could not have entered Panjab long before 1300 B.C., and therefore no Vedic hymn is much older than 1300 B.C. Moreover, granted that the Brahmanas begin about 800 B.C. four centuries suffice for the Mantra period, therefore anything older than 1300 B.C., is highly improbable.

The latter part of the argument only gives the *lower limit* for the beginning of the Rgveda. The upper limit is in question,

Difficulties: Comparison argument initiated to prove "extreme age" of Gāthās; adapted to disprove "extreme antiquity" of Mantras; possibility that the resemblance has been exaggerated. Absence of definite starting points on either side. Why not compare inscriptions of Darius with those of Aśoka?

Granted that all languages change, do they change at a uniform rate, or can one strike an average for six or seven centuries?

Parallels suggested: Greek from Homer to Plato. "Homer" is an indefinite date; the dialect-factor is obvious; the conditions very different; the changes in literary Greek down to the newspaper of to-day less rapid.

Europeanising of America and Aryanising of India. Difference of conditions suggests this comparison is irrelevant, especially as the latter process is less complete than the former.

Other Parallels: The records of Egypt, language of Sargon and Nebuchadnezzar, Chinese literature.

Objection: Stability of script or written language, not of pronunciation or folk-language, but possibility of oral tradition and poetic dialect for both Mantras and Gāthās.

Parallel of Romance languages: Convenient because more dated documents and history known from other sources.

An Experiment: From a comparison of the Spanish and Italian versions of the Psalms to determine when the Romans colonised Spain.

Difficulties: (a) Relative value to be assigned to changes (i) phonetic (ii) grammatical structure due to (a) phonetic change; (b) new methods (iii) vocabulary.

A tentative compromise: (b) Given a ratio of resemblance in this form, how can it be applied to chronology? Which affected Spanish most, the original contact with Iberians, the invasion of

Visigoths, or contact with Arabic-speaking Moors?

If for the first five centuries of the Roman occupation the language of the colonists remained essentially Latin, then a calculation based on the assumption of a definite cleavage starting from the first invasion of Spain will be several centuries wrong.

(One reason for this slow differentiation was continued contact with Rome).

Application of this Experiment to Avesta and Veda: In absence of information as to actual cleavage of Aryans, there is the possibility of contact and of parallel development for several centuries, which philology cannot disprove.

Conclusions: 1 Any attempt to fix chronological limits on the basis of comparing languages should be based on a more exact numerical comparison than has been attempted hitherto. This opens up a new line of research.

2 It is necessary to realise that while history known from other sources can be traced in the history of language, it is much more precarious to reconstruct history on a basis of comparative philology. In particular it seems that 2,000 B.C. remains quite as possible as 1,200 B.C. for the earliest mantra in the Rgveda.

If 2,000 why not 3,000 or even 4,000 B.C.?

No direct philological proof, but if exact comparison shows this means assuming a degree of stability twice as great as that recorded anywhere else in the world, philologists may reasonably demand strong confirmation from archaeology, and if it means a degree of stability in folk-speech (say) ten times as great as anything found elsewhere, the philologist will not be able to regard such a date as even faintly probable.

Doubtful however, whether anyone would now propose so remote a date as 4,000 B.C. for the *actual text* of any hymn, or for the Aryan Settlements in the Panjab. The date of the Vedic deities and of many elements of Vedic culture and belief is a different matter; some strands in the web are admitted to be Indo-Iranian, and even Indo-European.

II.—Avesta.

Sanskritised Passages from the Gāthās. By DASTUR KAIKOBAD A. NOSHERWAN.

The resemblance between the language of the Gāthās and that of the Rgveda is very great. It is possible with the application of certain phonetic laws, to throw a Gāthā into a genuine Rc-form and vice versa. Such an attempt for the Pehlavi was done some centuries ago by Mobed Nairyosangha; the same ought to be done on an exhaustive scale for the Gāthās of the Avesta. Some Gāthās from Ahunavaiti are translated into Sanskrit in this paper.

Results of the comparison. Great phonetic and etymological similarity between the languages. This points to a period when the Vedic and Avestan Aryans began to secede from each other. Perhaps the parting was due to a revolt against the domination of the Vedic language and religion; a parallel in Buddhism. The Avesta religion is a stand against the multiple Nature-worship of the Rgveda.

The revolt was complete long before the conquest of Medea by Cyrus.

Airyana Vaejo, the cradle of the Aryans and Mazainya Daeva, the Devas of Mazandru or Brahmanical Devas. By J. D. NADIRSHAH.

From records in the Zend-Avesta and the Pahlavi Bundehshu, I have traced the site of Airyana Vaejo, the birth-place of the primitive Aryans, to the south-eastern foot of the Caucasus. It was gradually extended southwards during the regime of the Yama Dynasty. Having determined this, it was not very difficult to show that Mazandrau was the ancient home of the Vedic Brahmins. In ascertaining this I am much assisted by the original significations of the terms *Mazainya Daeva* and *Mazandrau*, as also by the account of Indra Daeva in V. XIX, and by his different attributive names.

Modern Science in Ancient Iran. By M. B. PITHAWALLA.

Experience shows that 'ideas' always endure even if the words and deeds that enclose them disappear. For the Parsees of India to remember Iran is to remember their lost youth, and that youth must have permeated the structural frames of the nations that once surrounded the Persian Empire and ultimately absorbed that Empire. Looking to the richness of the Greek and Arabic literatures, it might be said that parts of the MSS. of which there were, according to Tarbari, 12,000 hides, must have been translated or paraphrased into the ianguages of the country's enemies.

For this rather too ambitious a subject our sources of information are: (1) Fragments of Avesta and Pahlavi books and (2) Records and reminiscences of the Aryan, Greek, Arab, Roman, Egyptian and Indian peoples.

Of the 21 Nasks in the great library of Persepolis, some were entirely devoted to science and very little or nothing is left for us to-day. In vain would we search for treatises like *Visnupurāṇa*. *Arthaśāstra*, etc. In an age of great scientific achievements, vague and unsystematic references to modern science in old books like the Avesta, are likely to be considered *trivial*, and yet the Zend-Avesta reveals with the eye of science, ideas, principles and practices of the Ancient Iranians resembling those of the present day. There is not the least doubt that they believed in the law of Unity of life, to which Dr. Sir J. C. Bose has contributed much in the new world. The little, that is at our disposal to-day, shows how it is possible for Religion to go hand in hand with Science. The world-famous religion of Iran was based on some scientific truths and facts which are corroborated by modern scientists. In Europe, unlike in Iran, Religion remained averse to Science. Science promised too much there, achieved but too little. Realism led ultimately to anarchism. People do not understand how far science could help her handmaid, in man's investigation of the laws and secrets of nature and of human life. It is a mistake to suppose that classic Persia neglected the affairs of the nature and of the living, changing world. Indeed, practical

Persia raised its house of philosophy and spirituality on the firm rock of nature and her laws. And to-day "the freshest Graduate from the Elphinstone College has no cause to blush for the 'ignorance' of Zarathusht!"

We shall know herein the twofold objects of science which the old Persians kept in view, *viz.* (1) To make human life healthy and (2) to satisfy human longing for the supernatural.

1 *Fire-energy and the theory of light and heat:* All forms of energy, including electricity, ultimately turn into heat energy. Heat is life and life is heat. 'Fire-worship' is the worship of the spirit of the Universe. Ātash, like electricity, gives long, healthy and quick life.

With Ātash there is the worship of Khorshed (Sun) and of Meher, Mithra (Ether.) Both of them are always together and jointly praised. The light of the Sun is conducted through the Ether (Mithra) of space. Matter is therefore related to ether and ether to spirit.

2 *Law of polarity:* This law is most manifest in the whole universe. The earth itself is a huge magnet.

The two life's First Principles, though opposed to each other, are essential for physical, mental and spiritual evolution. *Spenta Mainyu* is the higher potential of electricity of life, while *Angra Mainyu* is the lower one.

3 *Chemistry:* There is no regular Sāstra in the Avesta, but the Iranians could prepare and use metals, drugs, charms, scents etc. Chemistry in Iran had much to do with medicine. Steel weapons were used, and coins were struck.

4 *Medicine and Surgery:* *Thritha* was the first Iranian physician, who was gifted with ten thousand medicinal plants. There were three kinds of cures, herbs (drugs), knife (surgery) and charms (magic.) Fevers, colds, plagues, itches, etc., were cured by Faridun and others. The college of surgeons allowed 3 trials only, first on a 'Daeva-worshipper' and then on a 'Mazda-worshipper'. Failures made them unfit for ever. Midwifery was highly developed according to the *Vendīdād*.

5 *Chemistry of Gaomez:* There is no antiseptic in the preserved Bull's urine. But it remains preserved for years on account of an extra percentage of Alkali. There are no injurious bacteria. Its use to-day is highly criticised.

6 *Hygiene:* The Ancient Persians are known for their more or less perfect Code of Hygiene. Air, light, heat were appreciated. Burial of the dead was strictly prohibited from a purely hygienic and sanitary motive. A system of Quarantine for infection and contamination was enforced. Things pervious to water were never used for ceremonials. River and well-waters were never to be polluted. The Parsees still possess a hygienic code and practise it up-to-date. The Parsees unlike other peoples have had to abstain from 'smoking'.

7 *The Hygiene of the Dakhma:* The Tower of Silence is constructed on a perfect system of sanitation and quite harmless, if it is not the best in some people's opinion.

8 *Geology and Astronomy:* References to the glacial epoch, the roundness and rotation of the earth, gravitation, formation of rain have been noted in the Avesta. Astrology the Persians might have borrowed from Chaldea. The Iranians marked the Solar year and once possessed a most correct calendar, including the Leap Year scheme.

9 *Agriculture:* To sow corn was to sow righteousness. Agriculture was Iran's speciality and irrigation was practised. Corns, medical plants, fruits were grown.

10 *Vegetable and Animal Kingdoms:* The Haoma and Beresem plants are prominent and there is in the Bundahish a book of Botany in its most elementary stage. Domestic animals were taken great care of and praised. Butter etc., were made.

11 *Arts and Crafts:* In architecture the Iranians excelled and influenced surrounding countries. There are splendid remains in Persia to-day, showing their skill in sculpture, decoration, painting etc. Also there were the arts of music, pottery, jewellery and other useful and artistic pursuits.

12 Miscellaneous: The Iranians were also famous for their stone-carving, cave-making, coin-making, navy, forts, postal system, political economy etc. Also, Zarathustra is supposed to have known electricity and some ceremonies were based on occult principles.

Thus an endeavour is made to touch, mainly through the Avesta in this paper, the smouldering embers of the *Fire* that blazed with magnificent radiance in Iran and illuminated the many lands over which it held sway for centuries. The twilight of all European sciences, that seems to dazzle some of the moon-stricken people there, is but the light originally received from the Sun of the Aryan East which shone powerfully over Chaldea, Babylonia, Medea, Egypt, India, Greece and Rome. Europe is but a satellite depending for her illuminations on that same Sun, that has now gone below *our* horizon, and like "the pale queen of night" she struggles to hide her own misgivings and bewitch her own as well as our people. But by dint of the great law of Righteous Order (Av. *Aśa*, Sk. अस्त) we are sure the same Luminary shall rise again, and again the dormant East shall rouse herself from her dreamy attitude, eclipsing the dimly-lighted West which lately laboured to burn herself.

The Avestan Archangels and Sanskrit Deities : a Comparison. By A. K. VESAVEVALA.

It has been proved by history and the Avestan and Sanskrit studies that in times immemorial the forefathers of all the Aryans, Hindus and Europeans had a common home in Aryana Vaejo and later on they inhabited a greater part of the eastern, western and southern regions. It is not known where this Aryana Vaejo was, but it is supposed recently to be somewhere in the Arctic regions. The causes of their separation were mainly of a social, political and religious nature. The Aryans after they had left their home led a pastoral life and sometimes cultivated some patches of land. The religion of these tribes consisted at first in worshipping all the good elements of nature separately, while that of the old Aryans as opposed to the Iranians was branded by the

latter as a source of mischief as some of the Daevas presided over natural objects possessing evil qualities. The Ahurian religion of agriculture was instituted which separated them from their Aryan brethren. Its founder was the one great personage Spitama Zarathuṣṭra who taught the worship, not of many gods, but of one true god Mazda. He applied the term Ahura Mazda to God and hated the Daeva-worshippers by naming his religion as Va-Daeva *i. e.* opposed to the Daevas. Thus these two tribes separated, but both of them kept the names of their ancient angels and heroes permanent, in order to show their respect and reverence for them and so we find similar names both in the Avesta and the Vedas as the Avestan Mithra, Sanskrit Mitra.

The Daevas is the name given in all the Vedas and in the whole Sanskrit Literature to the divine beings or Gods who are the objects of worship on the part of the Hindus even to the present day. In the Avesta from its earliest to the latest texts and in Persian, Daeva is the general term for an evil spirit which is hostile to all that comes from the Almighty and that is good for mankind.

The difference between the Avestic Yazata and the Vedic Daeva is that whereas the Avestan Yazatas show only good attributes and are represented as shining and immortal, the Vedic Daevas are depicted as injuring mankind to a very large extent. The Hindus worship the Daevas with the main object that they may escape scot-free from their destructive influence, as for example they worship Yama the demon of death with a view to be free from his pains. Again the Vedic Daevas are not represented as shining and immortal. They assume a human form and involve themselves in these worldly attractions and pleasures. Again human sacrifices were offered to the Vedic gods whereas in Avesta no such sacrifices seem to have been offered to the angels.

Now let us come to the main point.

The first and most worthy of adoration is Ahura, the wisest, the greatest and the best. He is Omniscient, Omnipotent, the Supreme Sovereign, All-in-all, and All-beneficent. In the Vedas we find Asura used in a good and elevated sense as in the Avesta. In the plural it is used for all the

gods. When Zoroaster taught the worship of one god and despised the worship of many gods, he applied the word Ahura for one deity ; later on the believers in Vedas used the word Asura in a bad sense and applied it to the bitterest enemies of the Devas with whom these Asuras are depicted as always fighting. The second archangel after Ahura is Vohu Mano. The literal meaning of the word Vohu Mano is 'the good mind.' The opposite of him according to Avesta is Akam Mano. We do not find any equivalent of Vohu Mano in the Vedic literature.

Then comes Aśa Vahistar meaning the best righteousness. He is the Archangel presiding over fire, the reason being that fire is the symbol of purity. The opposite of him is Indra. Indra the chief god of the Brahmins, the thunderer, the god of light and the god of war, one for whom the Rsis drank and squeezed the Soma beverage, is expressly mentioned in the list of demons in the Avesta. In the Vedas he is considered as the great god on the same level as the Avestan Ahura. In the Vedas many hymns are recited in his praise. He fights with the Asuras, with Vṛtra and Ahi and also with Dasyus and Gandharva.

The fourth archangel is Khsathra Vairyā which means the desirable strength or sovereignty. This personified abstraction, rightly observes Prof. Jackson, represents an embodiment of Ahura Mazda's might, majesty, dominion and power, or that blessed reign whose establishment on earth will mean the annihilation of evil. Saurva (Vedic Śarva) occurs as the opponent of Khsathra Vairyā. The Vedic Śarva is called the Śiva of the Hindus. His work is to produce mismanagement, oppression and drunkenness in men.

After him comes Spenta Armaiti, which means literally 'the beautiful righteous thinking.' By this is not only meant wisdom but something even more than that, viz. humility and quiet resignation to the divine will. Naonhaithya, Vedic Nāsatyā, is the name of an evil spirit in the Avesta. He is the demon of dissatisfaction and illusion. Haurvatat and Amaretat, the two last Archangels, form an inseparable pair. They appear almost constantly united. Their names

signify invulnerability or totality and immortality. The adversaries of Haurvatat and Amaretat are Tanru and Zairicha, the demons of sickness and decrepitude or feebleness. In the Vedas we find the evil powers all fighting against the angels produced by Brahmā and just as Zairicha is considered to be the opponent of Amaretat, so Zaras in the Vedas is supposed to be the evil power against vegetation and plants.

III.—Pali and Buddhism.

Buddhist Philosophy of Change. By MAUNG SHWE
ZAN AUNG.

- 1 Introductory remarks
- 2 (a) Flux as original from the Buddhist point of view
as from the Bergsonian
- (b) A discussion of the technical term *anicca*
- 3 Hallucination and Change
- 4 Continuity *versus* succession
- 5 Perception and conception of change
- 6 Buddha's attitude towards conceptual change
- 7 General method of contemplation of change
- 8 Intellectual verification of conceptual change
- 9 Inter-relation between conceptual change and pain
- 10 Philosophical equanimity, a *sine qua non* of intuition.
- 11 (a) Period of adaption for intuition
- (b) Thought-transition from intellect to intuition
- 12 Adoption into the family of intuitionists
- 13 Intuition of true flux
- 14 Triple marks of one reality
- 15 Nibbāna, true flux
- 16 Concluding remarks.

The Vinaya Literature of the Buddhists. By N. K.
BHAGWAT.

- 1 Pali literature is vast, though the canonical literature is handy. The three Piṭakas. The Vinaya Piṭaka forms the subject of the paper. The "Buddhists," in this paper, connote "The Hinayānists." The paper is an humble attempt to have an idea of the Vinaya literature and does not pretend to be exhaustive.

2 What is Vinaya? Evolution in the idea of Vinaya from mere Silāni, to a "body of rules and regulations for the guidance of the Sangha." Traced through different stages by showing how the terms 'Vinaya,' 'Pātimokkha' had first ethical significance and how gradually legal aspect came to be seen.

3 History of the Vinaya literature as given by Bud-dhaghosa in his Bāhiranidānavannanā. Upto this time not received sufficient attention at the hands of western scholars. A very good attempt to trace the history of Vinaya from the Parinibbāna of the Buddha to its (Vinaya) establishment in the island of Ceylon. Making allowance for superhuman element in the narrative, the book has a great historical value. The tradition of the southern Buddhists is clearly seen.

4 Web-like growth of the *books of the Vinaya Pitaka* first simple verses, having ethical purity as its burthen. Then simple rules like the Sikkhāpadāni—the complicated Pātimokkha—the expanded version of the Pātimokkha in the Sutta Vibhaṅga. The Kandhakas, superiority in narration and style. The Parivāra Pāṭha a kind of manual to assist memory and to bind the different works of the Vinaya. *Subsidiary Literature* in the form of commentaries and Tikās. *English Translation and criticism* on the Vinaya, complete the survey of the Vinaya Literature of the Buddhists.

5 The object of the paper is over. But the importance of the Vinaya to a research scholar is very great. It throws light upon the Buddha, the Dhamma, the Saṅgha, the political, moral, intellectual, agricultural, medicinal state of Northern India and thus helps us in solving the problem of filling up a gap in the history of India from 400 B. C. to 200 A. D.

The Burning of Mithilā. By C. V. RAJWADE.

1 The burning of Mithilā is merely figurative.

2 There were common stories current among the people about King Janaka's renunciation and the temptation to which he was subjected.

3 There were originally two different versions of these stories which later on got mixed.

4 There is no evidence of any actual borrowing. All may be said to have drawn on the common fund of folklore.

5 The bracelet and heaven and hell incidents were in all probability quite distinct.

6 The Buddhist and Jain versions seem to have tried to bring together all isolated factors in the stories current about king Janaka.

7 The Jains seem to have substituted the name of Nimi for that of Janaka.

8 The Mbh. versions are too abrupt and isolated and may very well have been later additions.

Buddhist Philosophy (in Pali.) By WIDURUPOLA PIYATISSA.

The author of this Nāya or Buddhist Philosophy is the Arahant Mahākaccāyana Thera, one of the eighty chief disciples of Lord Buddha. This philosophy was produced by him for the sake of interpreting the Buddha's teaching, which is divided into nine Āngas or divisions according to the subject matter.

The nine Āngas are :—

1 Sutta (Discourses) 2 Geyya (Mixed prose and verse)
 3 Veyyākaraṇa (Discourses without verses) 4 Gāthā (Verses)
 5 Udāna (Joyous utterances) 6 Iti-Vuttaka (Sayings of Buddha at which Ānanda Thera was absent) 7 Jātakas (Birth stories) 8 Abbhutadhamma (Extraordinary things) and 9 Vedalla (Pleasurable discourses).

Lord Buddha has taught nothing outside the scope of these nine. Those who are desirous of interpreting any of the Buddha's teachings should at first study the Buddhist Philosophy. This very Mahākaccāyana Thera is the author of two works Petakopadesa and Netti-prakaraṇa. The latter being approved by Lord Buddha was recited at the First Saṅgha Convocation. Later, the great commen-

tator Bhadanta Dhammapāla Mahāthera of the Badarātītha Vihāra wrote a commentary on it which is still held in high repute by the learned Mahātheras of Ceylon, Burma and Siam, who are well versed in Dhamma.

Yet for all in Ceylon it is not much popular as it is not taught to the pupils by their teachers. There being an interpretation of the Buddha's teaching in this work, and without a knowledge of which the students are liable to be illogical in giving their interpretations, it is highly beneficial if the teachers in Ceylon do undertake the task of teaching this work or this philosophy to their pupils.

In consequence of these and many other advantages I avail of this opportunity to prepare a paper on the Nāya or Buddhist Philosophy in briefly confining my attention mainly to the Netti and its commentary.

The author has divided this work into two sections.

(a) Saṅgaha Vāra (abridged section) and (b) Vibhāga Vāra (classified section).

Saṅgaha Vāra.

The following is briefly described in it :—The teaching which ought to be interpreted according to the Nāya or Buddhist Philosophy is considered by the name "Sutta", which then divides itself into twelve kinds according to the letter (Byañjana) and meaning (Attha).

The sixteen Hāras, the five Nāyas, and the eighteen Mūlapadas, are alone considered as the Netti or Buddhist Philosophy.

Byañjana (Letter) is explained by the sixteen Hāras, Attha (Meaning) by three Nāyas (Nandiyāwatta &c.) and the Sutta by the above and the rest.

Vibhāga Vāra.

This is sub-divided into three other sections, Uddesa, Niddesa, and Paṭi-Nidessa.

I. Uddesa Vāra

The following names are mentioned in it. The sixteen Hāras:—

1 Desanā, 2 Vicaya, 3 Yutti, 4 Padaṭṭhāna, 5 Lakhaṇa, 6 Catubbyūha, 7 Āwaṭṭa, 8 Vibhatti, 9 Pariwattana 10 Vevacana, 11 Paññatti, 12 Otaraṇa, 13 Sodhana, 14 Adhiṭṭhāna, 15 Parikkhāra, 16 Samāropanā.

The five Nayas :—

1 Nadiyāwaṭṭa, 2 Tipukkhala, 3 Sīhawikkilita, 4 Disālocana, 5 Āṅkusa.

The eighteen Mūlapadas :—

Nine of which are in the Akusala (Immoral) section.

1 Taṇhā (Craving), 2 Avijjā (Ignorance), 3 Lobha (Greed), 4 Dosa (Hatred), 5 Moha (Delusion), 6 Subha-Saññā (Agreeable perception), 7 Sukha-Saññā (Pleasurable perception), 8 Nicca-Saññā (Perception of permanence), 9 Atta-Saññā (Self-perception).

The remaining nine are in the Kusala (Moral) section.

1 Samathā, (Concentration), 2 Vipassanā (Insight), 3 Aloha (Disinterestedness), 4 Adosa (Amity), 5 Amoha (Freedom from delusion), 6 Asubha-Saññā (Disagreeable perception), 7 Dukkha-Saññā (Painful Percepton), 8 Anicca-Saññā (Perception of impermanence), 9 Anatta-Saññā (Self-less Perception).

II. Niddesa Vāra

A fair description of the following appears in this section. The above-mentioned Hāras and Nayas are fairly described in five ways Padaṭṭhāna, Lakkhaṇa, Kāma, Etaparamatā and Hetu.

Also the six Byañjanas, Akkhara, Pada, Byañjana, Nirutti, Niddesa, and Ākāra.

And the six Atthas, Samkāsanā, Pakāsanā, Vivaranā, Vibhajanā, Uttāni-Kamma, and Paññatti.

III. Paṭi-Niddesa Vāra

This is sub-divided into four, (a) Hāravibhaṅga Vāra, (d) Hāra-Sampāta Vāra, (c) Naya-Samutṭhāna Vāra, and (d) Sāsana-Paṭṭhāna Vāra.

(a) Hāravibhaṅga Vāra is that which describes how many scriptural texts are contained in one single Hāra,

- (b) Hāra-Sampāta Vāra is that which describes how all the sixteen Hāras are contained in one scriptural text.
- (c) Naya-Samuṭṭhāna Vāra is that which describes in detail how the three Attha Nāyas, viz, Nan-diyyāwatṭa, Tipukkhala and Siha-Vikkilīta and in brief the two Kamma Nāyas Disālocana and Añkusa appear.
- (d) Sāsana-Paṭṭhāna Vāra is that which, after having shown the eighteen Mūlapadas in sixteen kinds of Suttas like the Samkilesabhāgiya, Vāsan-abhāgiya and so forth, and in twenty eight ways like the Lokiya (mundane), Lokuttara (supramundane) and so forth, describes the two divisions comparing also both of them.

The brief contents of this paper are arranged according to the method followed in the Netti and its commentary.

Nāgārjuna—the earliest Writer of the Renaissance Period By SATIS CHANDRA VIDYABHUSANA.

The rule of the Kuśanas, which extended from 50 B. C. to about 350 A. D., was, to a great extent, synchronous with that of the Āndhras who seem to have held sway up to the 4th century A. D. Kaniṣka, more often called Kanika, was, as it appears from the Tibetan and Chinese books, a general name for the kings of the Kuśana dynasty, just as Sātavāhana was, in the opinion of Sir Ramkrishna Gopal Bhandarkar, a common name for the kings of the Āndhra dynasty. The fourth Buddhist Council for the codification of the Tripitakas in Sanskrit was held in Jalandhar under the patronage of a certain Kaniṣka of the later Kuśanas, and it was perhaps to the son of this Kaniṣka that Aśvaghosa addressed a letter under the title of *Mahārūja-Kanika-Lekha*, a faithful translation of which is contained in the Tibetan Encyclopædia called *Bstain-hgyur*. The son, who is described as a descendant of the Sun, is advised to imitate Deva, signifying a god as well as Āryadeva. In fact the son

was a junior contemporary of Āryadeva and his fore-fathers must have lived long in India before he could be described as a scion of the solar race.

Nāgārjuna, who was a senior contemporary of Aśvaghoṣa, wrote a letter called *Nāgārjuna-suhṛllekha* to a certain Sātavāhana of the Āndhra dynasty. In the Tibetan version of this letter contained in the *Bstain-hgyur* the king is precisely named as Udāyibhadra. This name does not occur in the list of kings of the Āndhra dynasty available up to date, and it is possible that he was not a monarch but a vassal king who possessed considerable political influence at the end of the third and ^{the beginning} of the fourth century A. D.

Now Tan-cao, a Chinese disciple of Kumāra-jīva (400 A. D.) states that Āryadeva lived a little over 800 years after the Nirvāṇa of Buddha. On the assumption that Buddha attained Nirvāṇa in 480 B. C., Āryadeva and his contemporary Aśvaghoṣa must have lived about 320 A. D. Consequently Nāgārjuna may be placed at about 300 A. D., and Kaniṣka under whose patronage the fourth Buddhist Council was held lived perhaps about the same time. This view tallies well with the statement in the *Rājatarangiṇī* that 12 reigns intervened between Kaniṣka and Mihirkaula (515 A. D.). In fact, according to Lama Taranath, Nāgārjuna was a contemporary of a king named Nemicandra, who ruled in Aparāntaka. On his death Phanicandra and two other very insignificant kings ruled in Magadha until Candragupta, who "did not take refuge in Buddha," founded the Gupta Empire in 319 A. D.

The Council of Kaniṣka inaugurated the renaissance of Sanskrit learning among the Buddhists by about 300 A. D. The later Āndhra chieftains too encouraged Sanskrit culture to a considerable extent. The Gupta kings by extending their patronage began to give an impetus to the renaissance movement among the Brahmins and to a certain extent also among the Buddhists by about 319 A. D. The teachings of Mahāvira as contained in the Jaina Agamas were codified in writing by Devardhi, Gani Kṣama-śramaṇa at Balabhi

in 453 A. D. The band of scholars, who were the pioneers of the renaissance included Nāgārjuna (300 A. D.), Āryadeva (320 A. D.) and Aśvaghoṣa (320 A. D.). The second band included Praśastapāda, Vātsyāyana (400 A. D.) and Śabara-svāmi, while Diñnāga (500 A. D.), Kālidāsa (530 A. D.) and Varāhamihira (505–585 A. D.) constituted the third band. The Purāṇas and other important works were the productions of this period.

The first and foremost writer of the renaissance period was, as already observed, Nāgārjuna round whose name has gathered together a host of traditional stories referring to his gifts as a physician, a chemist and alchemist and a philosopher. Nāgārjuna was born in Vidarbha (Berar) during the reign of King Sātavāhana of the Āndhra dynasty and passed many of his days in meditation in a cave dwelling on Triparvata that bordered on the river Kṛṣṇā. That Nāgārjuna lived in Vidarbha is evident from an inscription on an image of Buddha by the side of the Amarāvatī stūpa in characters of the early 7th century A. D. The latest date that can be assigned to Nāgārjuna is 401 A. D. when his biography was translated into Chinese by Kumārajīva. That Nāgārjuna lived about 300 A. D. harmonises well with the fact that his disciple Āryadeva lived a little after 320 A. D.

Nāgārjuna was the author of a treatise on Logic called *Pramāṇa Vihetana* which is a review of the definitions of the sixteen categories as given in the Nyāyasūtra. A special feature of this work is that in it Nāgārjuna for the first time reduced the syllogism of five members into one of three. The Indian logicians, inspite of their stout opposition to Nāgārjuna's syllogism, found it in course of time most expedient to adopt the same. *Upāya-kauśalya-hṛdaya-śāstra* is the name of another work on logic in which Nāgārjuna gives a clear exposition of the art of debate. In the *Vigraha-vyāvartani-kārikā*, Nāgārjuna criticises the Nyāya theory of Pramāṇa, and it is perhaps this criticism which is reproduced in the Nyāyabhāṣya of Vātsyāyana in connection with his examination of Pramāṇa. But that which distinguishes Nāgārjuna pre-eminently in the world of letters is the Mādhyamika philosophy founded by him in consonance with

the principles of the great Mahāyānasūtra called Prajnā-pāramitā. The doctrine of the Mādhyamika philosophy has been a subject of constant attack by the Indian philosophers of all schools. An attempt has even been made to misinterpret it wilfully and even to discard it as a system of Nihilism, but it has emerged unscathed. Impartial judges have declared it even as the basis of Śaṅkara's Māyāvāda.

I have given only an imperfect idea of Nāgārjuna as a philosopher. He may be looked at from so many distinct standpoints that we shall not be far wrong if we call him the Aristotle of India.

1974)

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1974

1974

IV.—Philology and Prakrits.

The Phonogenesis of the wide E and O in Gujarātī.

By N. B. DIVATIA.

1 Nature and Scope of this sound.

કોઠી (= a jar), કર્થી (= the wood-apple tree); ગોળ (= round). ગાંધ (= molasses); વેલ, છેલ; વેરવું, વર;—these represent the narrow and wide sounds. (I mark the wide sound with an inverted Mātrā sign.)

The wide sound resembles the sound in English “hat” and “awl” and the narrow one resembles that in English “hale” and “hole”.

The wide sound is peculiar to Gujarātī, and Māravādī, Hindi represents by ં and ઁ the sound which is slightly different from the wide sound.

2 History of the notice taken of this wide sound.

Stray attempts at recognition of this sound were made by Gujarātī writers before 1888 A. D.

In A. D. 1888 and 1905, I brought this prominently to notice in a pamphlet (1888 A. D.) on ‘Spelling Reform’ and in a paper (1905 A. D.) on “Spelling” read before the 1st Gujarātī Sāhitya Parīṣad.

- (1) My article (Indian Antiquary, January and May 1915 A. D.)
- (2) Dr. Tessitori’s article on “Bardio Survey”, Appendix I, J. A. S., Beng. A. S. XII, 1916 A. D.
- (3) My second article, Ind. Ant. 1917 A. D. and 1918 A. D. on “The wide sound of E and O”.
- (4) Dr. Tessitori’s article in reply to above (No. (3)) Ind. Ant. September 1918 A. D.

contain the whole discussion of this subject.

The present paper is in the form of a rejoinder.

3 The main issue : What is the origin of the wide sound?

According to Dr. Tessitori, the wide sound is generated direct by અદ-અત (original or derived by *samprasāraṇa*) [and the narrow one direct by અય-અવ.]

According to me, the wide sound is generated by अय-अव (through अय्-अव्) original or derived by *prati-samprasāraṇa* [and the narrow one by अइ-अउ, original as well as derived].

Thus :—

I.

वचन	वयण	वइण	वण
मालिनकं	मइलउं		मैलु
गवाक्ष	गवरव	गउरव	गार्ख
मुकुट	मउड		मॉड

represent Dr. Tessitori's Steps ; while

II.

वचन	वयण	वयूण		वण
मालिनकं	मइलउं	मयलउं	मयूलउं	मैलु
गवाक्ष	गवरव	गवरव		गार्ख
मुकुट	मउड	मवड	मवूड	मॉड

represent my steps.

4 वयर and similar forms; Dr. Tessitori's account of the य.

Dr. Tessitori denies *prati-samprasāraṇa*. I confront him with forms like वयर, वयरागी, पयसार, वयठउ, पयठउ &c., actually found in O. W. Rāj. works. Dr. Tessitori explains this य as a mere writing peculiarity, the scribe's writing य for इ; it is not a real phonetic change, according to him.

To prove this Dr. Tessitori goes back to Prakrit works even and shows that in Jacobi's *Erzählungen in Māhārāṣṭri* (Pp. 60, 61, 63, 72).

गयं, पयसारिओ, कयवयं and वयर, are found for गइं, पइसारिओ, कइवय and वइर.

My reply :—The MSS. on which Jacobi based his edition were written in V. S. 1611 and 1660 respectively. Thus this य in Prakrit work can easily be accounted for by the fact that the forms with य were in actual use in O. W. R. and the scribes of this period naturally slipped into the Prakrit work this spelling quite foreign to Prakrit, as it came long after Apabhraṃśa ceased.

5 Dr. Tessitori's varying views as regards this य.

(a) Dr. Tessitori has actually regarded this as a real change, and cited वयर etc. as instances thereof from O. W. R. works. (His "Notes", § 4-(5)).

(b) He, then, later on regards

(1) वयर &c. as instances of writing peculiarity;

(2) वयर, वयरागी as Prakrit *tatsamas*;

(3) That the अय may be a corruption of the Sanskrit
अै.

("Bardic Survey" App. 1, p. 76.)

(c) Lastly, he regards

(1) The य as a writing peculiarity for इ;

(2) वयरागी as a *tatsama* in part modelled on वयर.

(Ind. Ant. September 1918.)

(3) Also Beames, Vol. I., P. 238, § 60.

Thus, he is shifting his ground from time to time. Besides, the three sub-heads under (b) above show a conflict of views.

6 Change of उ to व. Is it व श्रुति?

Dr. Tessitori objects that once O. W. R. has turned the व to उ, it cannot send the उ back to व. (O. W. R. changes the व to उ invariably e.g. कवड्ही-कउडी; धवलउ-धउलउ and so forth).

My answer was that reversion is a well-known principle, and I cited instances of Sanskrit न, Pr. ण, O. W. R. and offspring languages न again; Sanskrit. न, Ap. ण, again न (G). This being the case, there is nothing strange in उ reverting to व if necessary. Dr. Tessitori repeats old objections, and in the instances cited by me (देसाउर-देशावर, देउल-देवल, देउर-देवर) sees, not reversion, but an interpolation of व श्रुति; citing Mār. राखुल, राखुत in support of the argument.

My answer:—This वु is not the result of व श्रुति interpolated, but the turning of अ to उ, just as Mār. turns अ to इ in किमाट &c. Any how व श्रुति argument will not explain the case of कवण back from कउण.

7 Movement of linguistic change backward and forward.

I explained the presence of forms like वयठउ and वइठउ side by side, by the theory that languages do not move on regular lines of uniform march, some forms will linger, some progress, go backwards and forwards, till a final settled state is reached. Dr. Tessitori considers this a novel theory requiring proof.

My answer :—(1) The change of લ to ળ and back to લ and again to ળ; ન to ણ and back to ન; કરિ-કરે and કરે are seen in such backward and forward movement in MSS. of different periods, so also અછિ-અછે, છિ-છે.

(2) Dr. Tessitori's own views support me.

(Vide his "Notes", Reprint, P. 5, ll. 16-20).

8 *The significance of the symbol ॲ, ӈ in MSS. of a period about the 16th Century A. D.*

Dr. Tessitori has a double argument :

- (a) He regards these ઐ-ઓ as steps from અઇ-અઉ towards the wide sound ;
- (b) He contends that such ઐ-ઓ are found in Gujarati MSS. of this period.

My answer :—

- (a) The ઐ-ઓ in Mār. MSS. are but a feeble attempt to symbolize the wide sound ;
- (b) I have made a patient scrutiny of many old Gujarati MSS. of the period, and found that nowhere do these MSS. use ॲ, ӈ for the evolutes of અઇ-અઉ and that, where in very rare instances, these symbols (ॲ, ӈ) are found, they are there either because the scribe was a Mārvādī or one under Mārvādī influence.

9 *Confusion in Dr. Tessitori's view of the pronunciation of these ઐ-ઓ.*

What was the actual pronunciation of these ઐ-ઓ, *tadbhava* ઐ-ઓ as Dr. Tessitori calls them ? He really gives varying answers to this question : Thus

- (a) The ઐ-ઓ were pronounced as diphthongs.
(Ind. Ant. September 1918, P. 227.)
- (b) *Tadbhava* ઐ-ઓ were not pronounced exactly the same way as *tatsama* ઐ-ઓ but they were probably pronounced in a way similar to the ઐ-ઓ of Hindi.
(Ibid. P. 228 and n. 10.)
- (c) The Hindi ઐ-ઓ sounds are identical with the wide અ-અઈ of Mār. and Gujarati, except that they represent a slightly earlier stage, the very same stage of the Mār. and Gujarati diphthongs as they

must have been pronounced previous to their transition into the wide vowels, अ-आ.

(Ibid, pp. 231-232).

My answer :—

How did अ-ओ all of a sudden jump into the wide sound, if they were pronounced as pure diphthongs? Evidently Dr. Tessitori has a lurking suspicion that the अ-ओ in question were not sounded as pure diphthongs, but, fighting shy of the wide sound (अ-आ), lingered somewhere before the fully developed wide sound. He again regards अ-ओ as representing this fully developed wide sound. This confusion as to the real nature of the अ-ओ symbols lands Dr. Tessitori into apparent inconsistencies.

My view is that the Mär. अ-ओ are poor symbols for the truly wide sound. I prefer, then, to represent this wide sound by the inverted *mātrā* sign (as in अ-आ), especially as अ-ओ, as संसृष्टि संविस्तर, keep the components अ-इ and अ-उ slightly apart from each other, whereas अ-आ as संकीर्ण संविस्तर, hold the component अइ, अउ interfused.

10 The ear-test. Is it to be rejected?

I have all along contended that the wide sound can only be produced by the अय-अव and the narrow one by अइ-अउ, and for this I appealed to the test supplied by the ear. Dr. Tessitori regards this test as misleading. I hold that in matters of this kind oral tradition and demonstration are essential. Dead formulæ and symbols are useless without such demonstration. Live sound must be presented to the ear.

11 Samprasāraṇa,—what part it plays in the present question.

In cases like कथपाका—कसवटी-कसउटी-कसोटी and धनतरकं-धण्यरउं धण्डरउं-धणेरुं, Dr. Tessitori objects to the उ-इ changes (*samprasāraṇa*) on the ground that *samprasāraṇa* is not possible (in O. W. R.) where the व or य is initial. Furthermore, he holds that if the व and य are stressed, there is no *samprasāraṇa*, but if unstressed they take *samprasāraṇa*.

My view is opposite. If व—य, or rather the अ thereof, is accented there is *samprasāraṇa*, and if unaccented, *samprasāraṇa* is prevented by the accent being shifted to the pre-

ceding अ (of अय्-अव्) thus turning the अ of य-व् into a द्रुततर अ and consequently dropping it, leaving अय्-अव् as the cause of the wide sound.

The genesis of *samprasāraṇa* in words coming into the vernaculars is this, as I perceive. *Samprasāraṇa* is due to a softening of effort in pronouncing the semi-vowels, it is a liquefaction of these sounds. This is possible when the य-व् are intervocalic; for the two adjacent vowels provide a vocalic atmosphere and influence. This, as a first step, reduces the strong य-व् to weak य-व्, and then finally to इ-उ. As Dr. Hoernle in his Introduction to the *Prākrita-Laksana* P. XXVII. § 4 happily calls them, the strong य-व् are really *semi-consonants* and the weak य-व् are semi-vowels. Thus under the intervocalic condition the semi-consonant passes into a semi-vowel and then a vocalic stage.

Thus the conditions for *samprasāraṇa* are :—

- (a) Intervocalic position of य-व्;
- and (b) stress on the अ of य-व्.

ध्वनि (Skr.)	धून (G.)
स्वर (Skr.)	सूर (G.)
द्वि (Skr.)	दुइ (H.)
व्यक्ति (Skr.)	वीगत (G.)

may at first sight appear to violate this condition as regards intervocalic position of य-व्. But in these cases a minute स्वरभक्ति steps in first and yields धूयनि, सूर्व वर, दुइ वि, वीगत यक्ति as intermediate steps, thus furnishing an intervocalic position for the य and व्.

12 Accent and its influence.

Dr. Tessitori is puzzled at my use of accent. He asks if it is the old Sanskrit accent. It cannot be in the case of Prākrits and vernaculars. Even the old Sanskrit accent was partly pitch and partly stress, no one is as yet decided as to its true nature, and scholars like Beames and Sir R. G. Bhandarkar have used the term " accent" in the sense of "stress" in dealing with the phonology of modern vernaculars. There was therefore no occasion to ask what I meant by the term accent, or to contend that my accent did not fall on the same syllable on which the Sanskrit accent falls.

13 Foreign influence assisting the wide sound.

I have put forward a merely tentative theory that the wide -sound, appearing during the Mogul period of Akbar's rule and intellectual upheaval when Persian and Arabic flourished in India, may have been matured under this indirect foreign influence, as व्यण-र्ण, कवृडी-काँडी answer inherently to the type presented by ह्यरान, कवूल (Arabic-Persian). Dr. Tessitori laughs away this theory, and says that we may as well attribute the Gujarāti and Mārvādī wide sound to English influence, because English has this sound in words like 'hat' and "hot".

My answer:—

I have simply stated that the sound was *matured under the indirect influence of Arabic- Persian*. The Arabic-Persian sound is not the wide अ-आ but अ॒-अ॒. All that I suggest is that व्यण-कवृडी represent a type that matured into र्ण-काँडी under conditions similar to the foreign words typified by ह्यरान कवूल (which in Gujarāti are ह्यरान-काल). The joke about English influence involves a reversal of cause and effect, for the wide sound began four centuries ago while the English contact is only a century old.

Apabhram्शa Literature and its Importance to Philology.

By P. D. GUNE.

1 The importance of the Apabhram्शa language and literature is very great, as that is the stage immediately preceding the modern Aryan vernaculars of India.

2 Apabhram्शa Literature known to the world of scholars was, until recently, limited to (a) the Vikramorvaśi, IVth act, (b) the Prākṛta-pingalasūtra, (c) Hemacandra's Grammar, IV 329 to 446, (d) the Kumārapālacakrīta, verses 14 to 82 only of Canto VIII, (e) stray quotations in a few Jain legends and Alāṅkāra works.

3 There has been a considerable addition to our knowledge of Apabhram्शa literature during recent years:—

(a) Printed works :—

I The Bhavisayattakahā of Dhanavāla, edited by the late Mr. C. D. Dalal, in the Gaekwad's Oriental

Series, but not yet published. The whole is in Apabhramṣa.

- II The Kumārapāla-pratibodha of Somaprabha, edited by Muni Jinavijayajī in the same series, but not yet published, contains much Apabhramṣa, especially in the 5th Prastāva.
- III The Upadeśataraṅginī of Ratnamandiraganin, edited by Mr. H. B. Shah, Benares, 1911, contains some stray verses and passages in Apabhramṣa.
- IV The Supāsanāhacariyam of Lakṣmaṇaganin I and II, edited by Pandit Haragovinda Das Seth, Benares 1918, contains besides stray verses, passages of considerable length at pp. 50, 190, 212, 286, etc.

(b) Manuscripts in different libraries :—

- I The Sañjamamañjari of Mahesarasūri, in 35 dohā-verses, complete, No. 1359 of 1886-92 of the Deccan College MSS. at the Bhandarkar Institute.
- II The commentary on the above by a pupil of Hemahamsasūri. This contains, besides stray quotations, a long story in Apabhramṣa, corresponding to our Kahāṇī.
- III The Tisatthimahāpurisaguṇālankāra of Pupphadanta, No. 370 of 1879-80 of the Deccan College MSS. at the Bhandarkar Institute, is an incomplete but voluminous work in Apabhramṣa, folios 304. It throws additional light on Apabhramṣa grammar, idiom and metre.
- IV There is a lot of Apabhramṣa MSS. at the Patan Bhandar mentioned by the late Mr. Dalal in his paper read before the Gujarāt Sāhitya Parīṣad (pp. 11 to 19). Of about fifty MSS. that Mr. Dalal has mentioned, only some three or four are of some considerable size.
 - (a) The Ārādhana of Nayanandin, a Digambara Jain, folios 18.
 - (b) The Paramātmaprakāśa of Yogindradeva, also a Digambara, folios 19.
 - (c) The Vāirasāmicariya of Varadatta, in two sandhis, with twelve and nine stanzas in each respectively.

(d) The Paūmasircariya of Dhāhala in four sandhis. Most of the others are of the nature of rāsaka, and contain either praises or lives of Jaina saints.

4 The importance of this literature :—

- I As parent of some of the modern vernaculars, especially of the Gujarāti and the Rājasthāni. Some points of close similarity like—*u* of the neuter nom. sing.,—*ā* of the nom. plural, the pronoun, the diminutive in *dā* etc.
- II As containing a lot of deśī words, which throw a flood of light on the vocabulary of the modern Aryan vernaculars.
- III As showing the richness and flexibility of Apabhramṣa Grammar such as is not gathered from a perusal of mere Hemacandra.

The Dialects of Burmese. By L. F. TAYLOR.

Three different families of languages are to be found in Burma, viz: the Tibeto-Burman, the Tai-Chinese and the Mon-Khmer. The present investigation is confined to a comparison of nine dialects belonging to the Burma group of the Tibeto-Burman languages. The dialects are (i) Burmese, which is the lingua franca of the Province, (ii) Arakanese, which resembles in pronunciation to the Burmese of a thousand years ago, (iii) Tavoyan, which is supposed to be an off-shoot from Arakanese, (iv) Intha, which is supposed to be an off-shoot from Tavoyan, (v) Danu, which is less archaic than Arakanese, (vi) Yaw, which is the dialect most resembling modern Burmese, (vii) and (viii) Two dialects of Hpon, which retain some very archaic features, though the language is on the verge of extinction, and (ix) Tanugyo, another dialect which retains archaic features, though it has undergone phonetic decay.

Comparison shows that in syntax, grammar, idiom and vocabulary, these dialects are practically identical. It follows, then, that the essential part of our investigation will be a study of the phonetic changes that words undergo as they pass from one dialect to another.

For this purpose tables have been constructed which show (i) the elementary sounds which are found in each dialect and in the group as a whole, also the various combinations which occur and (ii) the phonetic changes that occur, first in the initial, and secondly in the middle and final parts of words.

Finally the suggestion is thrown out that Burmese, though now a monosyllabic language, was once disyllabic or polysyllabic, and in the structure it was perhaps similar to Indonesian. It is submitted that we now possess evidence which, though it is quite insufficient to amount to proof, is sufficient to make this hypothesis worthy of consideration.

The Importance of Philology for modern languages. By J. M. UNWALA.

1 The descent of the Modern Indian languages of the Aryan Stock and their sister-languages in Asia and Europe from their common parent, the so-called Indo-Germanic or Indo-European language, shown by a geneological tree.

2 The Home of the Indo-Germans lay in the Carpathian mountain-ranges.

3 The rise of different dialects from one common language and the development and fossilisation of these dialects in the course of generations into separate languages

- (1) due to natural barriers, like mountains and rivers between two regions or countries ;
- (2) due to mannerisms of a person, used by him while speaking his mother-language ;
- (3) due to analogy in word-formation, etc.

4 The importance of philology :—

- (1) it proves that the so-called exceptions in the grammar of any language whatsoever are analogical formations or no exceptions at all ;
- (2) it shows the common relation between languages of the same stock, howsoever different in external features they may be ;
- (3) it simplifies grammar by bringing the so-called exceptions under hard and fast rules ;

- (4) it throws indirectly much important light on the question of the history of civilisation and culture of the people, whose language it deals with ;
- (5) it helps us also to discover the fossil remains of some dead languages preserved in a language, which we are subjecting to a comparative study.

5 Philology is studied more in Germany than anywhere else in Europe, except lately in France, since the time of Francis Bopp (1719-1867), the father of Philology.

6 What has been said above on the importance of Philology in general is also applicable to the modern Indian languages.

7 The necessity of a comparative grammar of the modern Indian languages worked out on the principles of Philology. A preliminary work or works are, however, required *viz.* grammars of Gujarāti, Marāthi, Bengali, and other modern Indian languages of the Aryan stock written on the basis of Philology, wherein chief stress is laid on the comparison of one of these languages with Sanskrit or Prakrit dialects. Intermediate works already done by German savants, Jacobi Pischel and Kuhn, *viz.* Comparative Grammar of the Parkrit dialects and Pali.

8 Such a comparative grammar is also necessary for the languages of the Dravidian stock. But here we have to reconstruct, by comparing these languages with one another, the once spoken ancient Dravidian language, which has died out without leaving behind it any written record whatsoever.

V.—Classical Literature.

Śakuntalā—An Allegory. By N. S. ADHIKARI.

Allegorical instinct is inherent in man. Allegories are of three types: (1) Prosaic or Rational or Conscious; (2) Emotional or Poetic or Sub-or un-conscious; and (3) Mixed. Kālidāsa introduced a change in the character of Duṣyanta of the Mahābhārata, under the operation of a subconscious cause and produced a consistent allegory. Objections to this allegorical interpretation, viz. (i) that any book can be interpreted allegorically; and (ii) that Duṣyanta represents Love, are perfectly untenable, and the splendid ancestry of allegories which Kālidāsa had behind him must have had their own effect upon him, who improved on them, and who was not creating any new ways in literature when he wrote the subconscious allegory.

The Relation of Śūdraka's Mṛcchakaṭīka to the Cārudatta of Bhāsa. By S. K. BELVALKAR.

After proving from internal evidence that the author of the Cārudatta intended to write more than the extant four Acts of the play, the essay considers and refutes the *prima facie* view that the Cārudatta is an abridgment for purposes of stage representation of the lengthier Mṛchakaṭīka. The argument involves a critical comparison of a large number of parallel passages from the two plays mainly from the point of view of dramaturgy, an evolution of the two plays from the aesthetic point of view being purposely ignored as not being capable of yielding certain results acceptable to all. Next, assuming that the Cārudatta is the earlier play elaborated by Śūdraka, an attempt is made to discover the dramatic motives underlying the additions, which have been ascertained to be (i) an exhibition of the author's knowledge and familiarity with highly technical and out of the way Śāstras; (ii) an introduction of low-life realism; (iii) the addition of the political bye-plot; and (iv) an appeal to the gallery by means of broad and rollicking humour. And as

these motives are natural motives consistently presented throughout the play, the priority of Bhāsa to Śūdraka is declared to be the most natural and the only possible conclusion to hold. That this conclusion is not without some bearing upon the date of Bhāsa is only hinted at towards the end of the paper.

Kālidāsa and the Gupta Kings. By H. B. BHIDE.

The following are the points sought to be established in the paper.

1 Originally the Raghuvamśa comprised only the first fifteen Sargas.

2 The Solar kings described therein represent the Gupta Kings as indicated below :—

Dilipa	represents	Candragupta.
Raghu	"	Samudragupta.
Aja	"	Candragupta.
Daśaratha	"	Kumāragupta.
Rāma	"	Skandagupta.

3 In the Vikramorvaśiya, in the first Act at least, Purūravas stands for or is meant to suggest Skandagupta.

4 Lastly, therefore, Kālidāsa was a contemporary, perhaps elderly contemporary, of Skandagupta.

5 The points of resemblance between the exploits of Raghu and Samudragupta and of Rāma and Skandagupta are more striking than in the case of the remaining kings.

Psychological Study of Kālidāsa's Upamās. By P. K. GODE.

I *The purpose of the Essay:*—To take a critical survey of Kālidāsa's "Upamās" so as to unfold in detail the workings of his faculty for noting comparisons: literary issues of the problem not altogether ignored: Kālidāsa's keen aesthetic sense, his penetrating intellect, his wide range of observation etc., determined tentatively.

II 'Upamā' in the broadest sense of the term—The technical divisions of 'Upamā' as given in the Indian works on Rhetoric, not followed as they are psychologically too water-tight to admit all the comparisons. Maxims included under "Upamās".

III Enquiry, based on the Śakuntalā only—The analytical and inductive method requires the limitation of the field of study. The Śakuntalā being a drama is truer to life than Kālidāsa's other Kāvyas. It gives a variety of comparisons. Other Kāvyas give variety but exaggerate the picture of human life they give.

IV Some psychological side-light—Locke's statement 'Brutes compare but imperfectly', endorsed by almost all the psychologists. The presence of the faculty for noting comparisons in a greater or less degree implies greater or less intellectual activity.

V Some illustrations from literature—From Sir R. Tagore, Carlyle, Prof. Walter Raleigh etc. Metaphorical employment of words gives a brilliant and fascinating aspect to literature.

VI Metaphorical vitality of words—Metaphorical employment of words, which is the operation of the faculty for noting comparisons, is the very soul of language—some illustrations.

VII An estimate of the comparisons in the Śakuntalā and an attempted interpretation of the same—Total number of comparisons is about 180. In acts where there is no "criticism of life" there is a rarity of comparisons since the narrative element preponderates in them. An objective attitude of mind is capable of producing comparisons. Comparisons are the outcome mainly of the poet's head.

VIII Comparisons a psychological test and the limits thereof—In a lyrical piece of composition there would be a paucity of comparisons but the converse of the statement is not true. A drama written by a mastermind will abound in comparisons.

IX Classification of Comparisons according to their sources—'The sources of similitudes are co-extensive with the world of knowledge'. By taking a survey of them we get

at the poet's knowledge of men and things; in fact we determine his range of observation. Kālidāsa had a seeing eye and an inquiring mind.

X *Sources of Comparisons*—(1) *Heavens*—the various aspects of the sun and the moon—constellations—eclipses etc. (2) *Earth*.—Phenomena of the sky: lightning, wind, clouds, rain etc. Ocean, rivers etc. Mountains, wells etc. Mineral world: gems. (3) *Life*—*The Plant Life*: Creepers: Śamī, Mādhavī, Ātimuktalatā, Navamālikā, Vanajyotsnā. *Flowers*: Kunda, lotus, lotus leaves, pollen of lotuses, day-lotuses and night-lotuses. *Trees*: Foliage of trees, branches of trees etc. *Particular Trees*: Sahakāra, Kesara, Candana, Sugarcane, Reeds etc. *Agriculture*. *Animal Life*—Affections of the animal body, diseases etc. *Particular beasts*: Deer, male and female, wild elephant, tiger, serpent, etc. *Birds* etc.—locusts; cuckoo, cakravāka, male and female; bee male and female; flies. (4) *Domestic Life*—Eatables: dates tamarind, honey etc. Fire, lamp; water, parasol, mirror, ornament, flag etc. Wealth, deposit of money etc. *Family relations*—conjugal love, parental affection, fraternal affection. (5) *Social Life*—Hospitality, polite behaviour, friendship, villainy—a city thronged with people etc. Military life, hunting and other sports etc. (6) *Religious Life*—practical and theoretical side of religion, doctrines of Karma and Mokṣa. (7) *Mythology and other literature*—Śiva; Lakṣmī; Trīśaṅku; Yayāti and Śarmisthā: celestial nymphs; Śesa; Kālakūṭa; Manes of ancestors; Amṛta; Indra, Jayanta and Paulomī; Nṛsimha etc. (8) *Fine Arts*—Painting and Music. (9) *Mental States*—Deranged condition of mind; Mental illusions etc. (10) *Abstract World*—Personified abstractions as standards of comparisons—other abstract comparisons. (11) *Conventions, poetic and otherwise*—a few illustrations.

XI *Some General Conclusions*—

- 1 Kālidāsa's intellect was truly comprehensive.
- 2 His knowledge of Nature, quite first-hand.
- 3 His skill in word-painting.
- 4 He drew no line of demarcation between Nature and Man.
- 5 Imaginative Comparisons, Utprehksās.

- 6 Intellectual and Emotional Comparisons.
- 7 Conventional ideas turned to good account.
- 8 An objection.
- 9 Aptness of Kālidāsa's Comparisons.
other qualities of comparisons such as novelty, variety etc.

10 No "long-tailed" Comparisons in Kālidāsa. His Comparisons are direct and there is a freedom of spirit about them.

Indian Aesthetics. By M. HIRIYANNA.

The field of ancient Indian Aesthetics remains unexplored and vague notions are current regarding the Indian conception of Beauty in Nature and in Art. The numerous works in Sanskrit on Poetics furnish sufficient material for deducing the Indian aesthetic theory and show that its evolution closely followed that of general philosophic speculation.

2 The Indian conception of the Beautiful was influenced mainly by :—

- (i) The *Ātman* doctrine of *Upaniṣads* which inculcates that the world of sense equally with the world of thought is but an imperfect expression of the ultimate Reality; but is yet adequate, if rightly approached, to reveal the underlying unity.
- (ii) The *Jivanmukti* ideal which, by recommending, not the repression of interests but an expansion of them, gave prominence to the culture of the emotions in the achievement of true freedom.

3 The writers on Poetics from whom the material for the paper is drawn may be divided into two schools :—

- (i) The *prācīna* school which confined its attention practically to an analysis not of what constitutes the essence of poetry but only of its outer form.
- (ii) The *navīna* school which concentrated its attention on the *vyaṅgyārtha* or 'implicit sense', which

as distinguished from the *vācyārtha* or 'explicit sense' constitutes the essence of all first-rate poetry. In revealing the poetic ultimate, word and explicit sense serve the same purpose as the passing things of experience do in revealing the underlying reality of the universe. This is the theory of poetry corresponding to the doctrine of *ātman*.

4 Of the three varieties of the implicit sense *vastu*, *alaṅkāra* and *rasa*, the last was specially emphasised for the sake of the emotional culture required by the *Jīvanmukti* ideal. This emphasis finds expression in the statement that *rasa* is the *ātman* of poetry. The term *rasa* has got an objective as well as a subjective reference and means not only aesthetic delight but also sentiments like 'love' whose treatment by the artist affords such delight.

5 The theory of *rasa* having become the recognized basis of Indian aesthetics, each system of philosophy interpreted it in the light of its own fundamental principles. The *Vedānta* and *Sāṅkhya* interpretations, which are the most important, are as follows :—

- (i) *Vedānta* :—The term *ānanda* furnishes the clue to the Vedantic theory of *rasa*. Joy or bliss is the intrinsic nature of the self, that being the significance of describing the *ātman* as *ānanda*. If its intrinsic character is not always manifest, it is because desire veils it. When this veil is stripped off, no matter how, the real nature of *ātman* asserts itself and we feel the happiness that is all our own. The immediate aim of art being pure delight (*Saayah-para-nirvṛti*) the artist has to induce an attitude of detachment and he does it by means of the ideal creations of his art. The particular forms he creates are determined by the other aim of art, viz., the refinement of our emotional nature. Being products of fancy these forms cannot awaken desire ; and when attention is once concentrated upon them, the ordinary state of tension caused by selfish desires is relaxed and joy ensues as a matter of course.

(ii) *Sāṅkhya* :—According to *Sāṅkhya*, on the other hand, *Puruṣa* has as little to do with pleasure as with pain. Pleasure and pain arise from the interaction between the two spheres of *prakṛtic* development—*buddhi* and the objective world—and *Puruṣa* stands by only as an onlooker. The Common view that he is affected by either is due to a mistaken identification of *buddhi* with *Puruṣa*. This mistake can not be avoided until the two are dissociated—i. e. until *jīvanmukti* is reached. So far as empirical life is concerned, individual purpose or selfish desire is ineradicable; and the ordinary man must take pain with pleasure. But, though he cannot dissociate himself from *buddhi*, he can by resorting to art find a temporary release from the natural world, the second of the two factors contributing to the misery of common existence. The artist's function is thus to lead us away from the real world into another not constituted of the three *guṇas*. The details of the new surroundings he creates for us are determined by the other aim of art, *viz.*, the refinement of our emotional nature. This view of *Sāṅkhya* art is found represented in Sanskrit Poetics as that of *Bhaṭṭa-Nāyaka*.

6. Thus according to optimistic *Vedānta*, pain is due to misapprehension and pure delight may be derived as much from Nature as from Art. According to pessimistic *Sāṅkhya*, pleasure untainted by Sorrow does not exist in the real world and has therefore to be sought outside it. Aesthetic delight according to idealistic *Vedānta* is due to a forgetting of our narrow Selves; while according to realistic *Sāṅkhya* it is due to an escape from common world. Art, according to the one, reveals the truth of Nature; according to the other, it fashions something better than Nature.

7. Thus according to optimistic *Vedānta*, everything in Nature is beautiful and ugliness is due to misapprehension. According to pessimistic *Sāṅkhya* ugliness is as real as beauty and both are found in Nature. Aesthetic delight

according to idealistic Vedānta is due to transcending the narrow self; while according to the realistic Sāṅkhya, it is due to escaping from the natural world. Art according to the one reveals the truth of Nature; according to the other, it fashions something better than Nature.

Kālidāsa and Music. By Sardar G. N. MUJUMDAR,

The chief object of the essay is to show how far Kālidāsa had the practical and theoretical knowledge of music in its three aspects *viz*—vocal and instrumental music and dancing.

Kālidāsa's possession of a good musical ear and a knowledge of the so-called *rāgas* of the Indian music can be evidenced from two works. The necessary stages in the practice of music have been referred to by him. He notes the songs or airs composed and to be chanted. We also learn from his works that the performance of vocal music must have the accompaniment of a drum and a stringed or wind instrument. He appears to be well-versed in instrumental music and discloses a wide knowledge of the principles of *nṛtya* and *nātya*. Kālidāsa gives sporadic indications of his study of the theory of music.

The chief points to be noted here are, (1) that the three-fold connotation of the term *sāṅgīta* does not occur in Bharata's *Nāṭyaśāstra*, while in Kālidāsa's works it is very common; and (2) that the *rāgas* had already been formed and were, therefore, in vogue in the time of Kālidāsa, which Bharata does not make mention of.

Meanings of technical words and a list of original *vastus* occurring in his works have been appended.

Kālidāsa and Candragupta II. By S. RAY.

Current Theory. References to Candragupta II. Reference to Hun settlement in Bactria. Hence Kālidāsa was the court poet of Candragupta II in the 5th century A. D.

Refutation. References to Candragupta II not proved. Similar references abound in the Vedas, the *Rāmāyaṇa*, the *Mahābhārata* etc. Admission of reference leads to undesirable conclusions. No reference to Bactria. Bāhlika is north Punjab, not Bactria. Vānsu is Sindhu not Oxus. Huns still to the north of India in Kālidāsa's time. Current theory contradicted by the Mālavikāgnimitra. Kālidāsa the court poet of Agnimitra.

Kauṭilya and Kālidāsa. By H. A. SHAH.

The article is too demonstrative to admit a summary without one's missing the trend of arguments leading to certain conclusions. Roughly, it may be said that attention is drawn to important parallelism of thoughts (and of language also) met within the works of Kauṭilya and Kālidāsa.

Subjects selected and treated are (1) Hunting, (2) Diseased and new kings, (3) High Priest, (4) Use of technical terms.

To take them up in a reverse order and summarize the results :

Technical terms show crystallisation of thinking and so far, the instance given points out how in the works of Kauṭilya and Kālidāsa, the same way of expression and getting at the things are met with.

The position of the High Priest, the estimation in which he is held and his functions (as seen in the Arthaśāstra and Raghuvamṣa) are all according to Kauṭilya. All the references are supplied for one's guidance.

About diseased kings: Notions of Kālidāsa run in line with those of Kauṭilya who has expressed them against the opinion of a politician named Bhāradvāja.

As regards new kings: The arguments of Kauṭilya are discussed in connection with the fate of a new king described in the Mālavikāgnimitra.

With regard to Hunting: All the references with quotations are given so that there may be no possibility of mis-

understanding the point. Passages from works of other authors are cited for a contrast and to make it easy, to get at a clear idea on the subject as understood and developed by Kālidāsa. Contribution of Kauṭilya lies in the revision he makes and innovations he introduces or in his recognition of them in the law book. Of that very nature is the contribution of Kālidāsa. That fact is pointed out at length in the parallels given. Hypothesis is then put forward that both Kauṭilya and Kālidāsa belong to one age.

Some of the ideas on the subject (i. e. hunting) found in the Arthaśāstra proceed from Kauṭilya and from nobody else. As the language and development of arguments of Kālidāsa are found to be as fresh as those of Kauṭilya, it is suggested that very likely they are one and the same individual.

By the by, the source for the date of Pusyamitra is passingly discussed.

The Text of the Śakuntalā. By B. K. THAKORE.

1 Our manuscript authorities for this play are all comparatively modern. They fall into four or at least three families. They yield three or at least two versions, the differences between which are numerous and important. But the Śakuntalā is a play that belongs to world-literature. As the world progresses in culture the number of non-Sanskritists studying it as the best product of ancient Indian drama, is rapidly on the increase, and in Kālidāsa we have a dramatist of perfect art and transcendent genius. Cultured humanity cannot tolerate three divergent Śakuntalās or even two. Nor is it necessary. This essay attempts to show that in many cases it discusses, we can select out of the divergencies presented by our authorities that reading and that arrangement of speeches which in the light of dramatic criticism is demonstrably the best.

2 Act V from the beginning up to the entry of Śakuntalā and her party. The Devanāgarī version is here the best.

3 Act III from *ubhe : nivvudā mha* to the end.

Here also the Devanāgarī version the best. The dramatic construction of Act III considered.

4 (1) Act VI the minister's memorandum.

The versions in which the King reads out the memorandum *verbatim* inferior; the others in which he only gives a summary of it are the best.

(2,3) Act I from *ido ido sahio* to *sarvā rājānam
drṣṭvā kiñcidiva sambhrāntāḥ*.

Here again the Devanāgarī version the best.

(4) Act V The verse *na tiryag* and the prose sentence introducing it should be omitted. The speech *bhadre prathitam* should be assigned to the Purohita.

(5) A draft translation is offered of the Pravesaka preceding Act VII, which is to be found only in the Kāśmirī version. A play on the stage a rich and varied feast of all the fine arts. But the acceptance of this Pravesaka into the body of the text is shown to be impossible.

5 (1) Act I, the king's approach to the hermitage.

Both verses should be kept; the charioteer's remark should be placed between them.

The geography of hermitage and the marginal *upavana* between it and the primeval forest.

(2) Beginning of Act IV.

All four verses should be kept, and in the Bengali order. Tune-analysis of the first four Acts.

(3) Beginning of Act III.

All the eight verses from *Jāne* to *abhyunnatā* should be kept; at the most *vṛthaiva* the 5th might be omitted, although there is no clear reason even for that. The dramatic construction of Act III further considered.

(4) Act VI After *asmātparam* the speeches of the apsaras, ceti and the King (this last including the verse *āmūla*) follow in the Bengali and Kāś-

mīrī versions, and it is at the end of this last verse that the King swoons. These speeches should be kept.

- (5) Sakuntalā's *ātmagata* speech (Act III immediately after the king's inquiry about Sakuntalā's health and Priyamvadā's reply) should be kept.

- 6 (1) Act I When the maidens draw their own conclusion from the signet-ring, the king's speech should be:—

अल्मन्यथा संभाव्य । राज्ञः परियहोऽयम् ।

and not the longer to be found in the Devanāgarī version.

- (2) Act II In the first verse the end of the first half should be:—तद्राविदर्शनायासि.

- (3) Act IX Anasūyā's first speech should be:—

एवं णाम विसञ्चपरमुहस्स जणस्स ण एदेण विंदिअं जथा तेण रण्णा सउन्दलाए अणजं आअरिदं ति ।

- (4) Act IV Anasūyā's second speech.

The Kāśmīri version with only the word *pahāsa* changed to *pavāsa* the best. Thus it would be read:—

अध वा दुक्षवसीले तवस्तिअणे को अबमत्थेअदु । ण सहिगमणेण दोसो ति ववसिदं । दाणि पारेद्वा । पवासणिव्युत्सस तादकस्तवस्स दुस्सन्तपरिणीदं आवण्णसत्तं को वि सउन्तलं णिवेदइस्सदि ।

Textual criticism an indispensable part or limb but only a part or limb of literary criticism in the widest, deepest, highest and truest sense.

- (5) Act V In the much discussed verse किं कृतकार्यद्वयोऽ०, • द्वेषा धर्मै प्रति विमुखता राज्ञः is the best reading.

- (6) Act VI In the Preveśaka the following words to be found in the Bengali and Kāśmīri versions—

श्यालः सिग्धं सिग्धं एदं (इत्यथांके)

धीवरकः हा इरे द्वि । (इति विषादं नाटयति)

श्यालः मुचेध रे णं ।

should be kept.

- (7) Act VI In *kāryā saikata* read *camara* for *hariṇa* as the Bengali and Kāśmīri versions.

- (8) Act VI After the king's proclamation read

◦ अहिंसादिदं महाजणेण ◦ as in the Bengali and Kāsmīri versions.

Note 10 Act II नेतच्चत्रं—read समितिषु मुराः or मुरसमितयः

(9) Act VI. For the concluding speech of the *apsaras* the Kāsmīri version is the best.

(10) Act VII. At the entry into the hermitage of Marici read as beginning of Mātali's speech, समयांत्रितोयमास्ते रथः

Many other instances could be given in which free use of our materials and a consideration of the drama as a whole and in each of its parts as work of art conceived and elaborated by genius, could enable us to pick out from amongst the variants or in a very few exceptional cases even piece together a reading, dramatically the best; a reading about which, Kālidāsa being Kālidāsa, we can draw the further inference that it is Kālidāsa's original reading about any of the other variants. And thus out of the Bengali, Devanāgarī and Kāsmīri Śakuntalā's which textual criticism gives us and beyond which mere textual criticism can never hope to advance, we can perhaps reconstruct the play as Kālidāsa wrote it.

VI.—Persian and Arabic.

Okhāharana in the Shahnameh. *By P. B. DESAI.*

The Mahābhārata and the Shahnameh are the two most well-known epics of India and Persia. Peoples of both countries had close intercourse from ancient times. They were the last of the Aryan races to separate from the Central Asian Home. The Aryans had many myths and legends, the most innocently lovely was the sun and dawn myth.

Many stories have been composed in many lands in imitation of that myth, one of them being the love-story of Okhā and Aniruddha in the 19th Parva of the Mahābhārata. There is a story of Bizhan and Manizheh in the Shahnameh which seems to be a copy of that Mahābhārata story in Persian verse.

The points of comparison are enumerated and discussed in the paper. It is the opinion of some mythologists that most of the Aryan myths and stories have common origin and have independent growth. The writer of the paper tries to prove that the story of Bizhan and Manizheh was a glaring instance of "conscious borrowing" or was directly imported into Persia from India.

There are more than one stories in the Shahnameh which seem to be borrowed from the Mahābhārata, Rāmāyana etc.

King Akbar and the Persian Translations from Sanskrit.

By J. J. Modi.

The object of the paper is to present a brief account of the attempts of King Akbar to get some important Sanskrit books translated into Persian. Our sources of information are the Āīn-i-Akbari of Abul Fazl and the Muntakhab-ut-Tawārikh of Badaoni. It seems, that Sanskrit was learnt by Persians, now and then, long before Akbar's time. We know, that the Pahlavi book which was the source of the Persian

Calila and Damna, was a rendering of an Indian book in the time of Chosroes I (Noshirwan the Just), who had close relations with India. The time of Calif Haroun Al Rashid is spoken of as the " golden age " in Mahomedan history, and that of his famous son Al Mamoun as the " Augustan age " of Arabic literature. Al Mamoun held, like Akbar, some religious conferences at his court. The Pahlavi Gajask-i-Abālīsh is a result of one of such conferences where Indian scholarsh also must be present. The Indian medical works of Caraka and Suśruta had been rendered into Arabic. It is said, that two Hindu doctors held the position of court physicians at the court of Harun Al Rashid. Elliot gives us an interesting chapter on the knowledge of Sanskrit by Mahomedans before Akbar's time. According to Ferishta, Feroze Taghlak had got translated into Persian some Sanskrit works out of about 1300 he found in a Hindu temple at Nagarkote in the Kangra Valley, which he conquered and which is known as that of the Jwālā-mukhi (volcanic) on account of a constantly burning subterranean flame. The celebrated Persian poet Amir Khushro had supplied some materials for thought to Persians of literary taste, like those at the court of Akbar, in his Nuh Sepehr (Nine Spheres), wherein, in his third sphere, he spoke of Indian languages and especially of Sanskrit.

Akbar, as a boy, was truant and his father had to rebuke him mildly for his illiteracy. But, as a King, he grew up to be one of the best kings of India, and his court was, as it were, " une véritable académie ". He had founded a large royal library, books from which were regularly read to him by different readers (*khūnandah*). He got books translated from Greek(yunāni), Arabic and Sanskrit. Among the Sanskrit books, so translated, we find the following: Kishan Joshi; the Gangādhar; the Mohesh Mahanand; the Mahābhārata under the name of Razm-namah i. e. the Book of Wars; the Rāmāyana, said to be " a book of ancient Hindustan, which contains the life of Rāmacandra, but is full of interesting points of philosophy": At'harban (the Atharva Veda); the Līlawati, said to be " one of the most excellent works written by Indian mathematicians on arithmetic "; Haribans, (Harivamśa) a book containing the life of Krisna; Nal va

Daman (Nala Damayanti); Singhasan Battisi; and Jog Basipta (Yoga Vāsiṣṭha). The translations of some of these were entrusted jointly to more than one scholar, among whom we see the names of well-known scholars of the times, like Abul Fazl, Faizi, Badaoni, and Nakib Khan.

I produce before the conference, for inspection, three MSS. of these translations. Two of these are of the Mahābhārata, and one, of the Jog-Basisht, which is mentioned neither by Abul Fazl nor by Badaoni but by a Hindu writer of Persian, Hari Charan Das, in his Chahar Gulzar Shujai, as mentioned by Elliot.

Abul Fazul speaks of the Mahābhārata as one of the ancient books of Hindustan containing nearly 100000 verses. He says, that though there are in it many extravagant tales, yet "it affords many instructive moral observations and is an ample record of felicitous experience." The recital of its concluding portion known as Harivamśa, was a cure to sterility. Abul Fazul, who was, as it were, the Sir William Hunter of Akbar's Court, has given in his *Ain-i-Akbari*, the Gazetteer of Akbar's time, a long account of the contents of the Mahābhārata. According to Badaoni, some attributed to it an antiquity of 4000 years, and some, of 80000 years. The idea of getting the book translated came to Akbar as if with a flash of thought, when he was hearing the reading of some Persian books, which, he said, were, after all, results of poetic imagination. He took the Hindu books to be such as were written by "holy and staid sages" and "were all clear and convincing proofs and which were the very pivot on which all their religion and faith and holiness turned.....They are by no means trite but quite fresh and they will produce all kinds of fruits of felicity, both temporal and spiritual." With thoughts like these, he at once ordered a translation. Three court-scholars were at first entrusted with the work and a number of learned Brahmins were asked to interpret and help. For the first few nights, Akbar himself took an active part in the work. He heard the interpretations of the Brahmins, and explained what they said to one of the translators, Nakib Khan. In all, the names of six scholars are associated with the Mahābhārata. To Badaoni, one of the translators, who

was one of the most bigoted Mahomedans, the translation of a non Moslem religious book was a work of sin, and Akbar, at one time suspecting that he at times let his bigotry creep into the translation, went to the extent of calling him *harāmkhor* (one earning his livelihood unlawfully). Akbar seemed to believe in the transmigration of souls, and so, it was the translation of a passage referring to the theory of Karma that led to this rebuke. The translation when completed was illustrated with paintings, the art of which flourished at Akbar's Court.

Now an important question is: Are the Persian translations of Sanskrit books literal faithful translations or more or less, paraphrases, or very free renderings or summing-ups. It seems, that however learned the scholars of Akbar's court were, they were not very proficient in Sanskrit. It is likely, that all the translators knew some Sanskrit, but that was not enough. They had with them a number of learned Brahmins to assist them as interpreters. Notwithstanding their assistance, their Persian translations are not, what we now understand to be, faithful translations from the original. Unfortunately, I cannot compare directly the Sanskrit of the *Mahābhārata* with the Persian, but, with the help of Mr. P. C. Ray's translation, I have compared as typical examples, the first sections of the first two *parvas*, and find, that they are very free renderings with omissions here and there, but not translations. To enable my readers to judge for themselves, I give at the end of the paper, the original Sanskrit, Mr. Ray's translation, the Persian text and my own translation of the first section of the second *parva*, the *Sabhā-parva*. For the Persian text and my translation, I have followed an old Persian manuscript of the Mullan Firuz Library in the K. R. Cama Institute. It is written in the Shikasta style. It was latterly, well nigh at the end of my study for this paper, that I got a better-written copy from the B. B. R. A. Society. I give at the end the Persian text from that Ms. also, to enable one to judge of the translation.

The unknown Yā in Persian. By SHAIKH ABDUL KADAR SARFRAZ.

The Paper is divided into two parts.

Part I :—(1) Prevailing misunderstanding amongst Persian scholars as regards the pronunciation of those words in which the majhūlāt letters occur ;

(2) The two ways in which these words are generally pronounced : (a) the Persian and (b) the Indian ;

(3) The Persian pronunciation is invariably regarded as the only correct one and the Indian is generally condemned as wrong and un-Persian ;

(4) The writer's opinion :—

(a) that the socalled Indian pronunciation is not at all Indian ;

(b) that it is purely and properly Persian ;

(c) that under certain circumstances it is scientifically more correct ;

(d) that the modern Persian pronunciation, appears, in a sense, as degenerate as it is foreign to Persian ;

(5) To prove this, four arguments have been advanced :

(a) arguments based on signification of terms ;

(b) argument based on historical and philological evidence ;

(c) argument based on testimony of standard Persian poets ;

Part II :—(6) The nature of "Yā-e-majhūl".

(7) Its principal varieties ;

(8) A list of useful words containing the "Yā-e-majhūl."

VII.—Dravidian.

Dravidian Tense-suffixes. By R. SWAMINATHA AIYAR.

I Introductory.

1 The views put forward in this paper and the suggested inferences therefrom are at variance with the present theory in regard to the Dravidian Languages. The paper should not be regarded as propounding any considered theory but only as furnishing materials for a fresh consideration of the subject.

2 Caldwell's theory was that the Dravidians were not an autochthonous Indian people but were immigrants speaking a Turanian language, who entered by the north-west passes; he was of opinion that the Dravidian languages had a few Indo-European grammatical affinities acquired by contiguity in the remote pre-historic past, but that their grammatical structure was essentially different and that they should be affiliated to the Turanian family.

3 The Authors of the Linguistic Survey of India are of opinion that the Dravidian is an isolated family of languages, that all attempts to connect them with other linguistic families outside India are regarded as failures, as also attempts to establish a closer relationship with the Indo-European family. They mention several particulars in which the Dravidian languages are supposed to have influenced Aryan inflection.

II Alleged influence of the Dravidian Languages on Aryan Inflection.

1 The replacement in Classical Sanskrit of verbal tenses by participles generally, and the increasing use of conjunctive participles in subordinate sentences. The reply to this is that the participles which the Aryan languages are said to have imitated are formed after the Aryan model and with Aryan materials, as will appear in the course of this paper.

2 It is stated in the Linguistic Survey that the periphrastic future in Sanskrit is based on the Dravidian model. It

is overlooked here that there was a periphrastic future in the Avesta. Indo-Germanic philologists carry back the origin of such formations to the pre-ethnic period.

3 It is stated that the active past participle *kṛtavant* is based on the Tamil model *seydavan*. Here also the Avestic parallel is overlooked; the form *kṛtavant* has its roots in the Indo-Iranian period. If the various forms which the masculine nominative singular of the demonstrative pronoun assumes in the Dravidian languages be examined, it turns out that such Dravidian language imitates the Aryan present participle with which it is most familiar. Tamil *avan* imitates the Vedic *bharan*; the Badaga and the old Kanarese *avām* imitates the Māgadhi *bharam*; the Telugu *vandu* and Madras Gondi *ondu* imitates Vararuci's *bharanto* very common in Pali; the Kui Eanju imitates the Avestic form *barās*. Further, it also appears that the Dravidian declension in *n* for names of rational beings and the declension in *t* for the names of irrational things correspond to the masculine *bharan* and the neuter *bharat*; while many Dravidian case postpositions are merely loans from Prakrit.

4 In the last two instances, Dravidian forms which must have come into existence within the last 2500 years are stated to have served as models to forms which are at least 5000 years old. In order to ascertain the relative antiquity of forms we should know what forms were in use in the earliest stage of the development of Dravidian languages, what changes have taken place in them since then, and how these changes have been brought about. It is also necessary to know what were the Aryan vernaculars spoken in India, prior to and about the beginning of the Christian Era.

III Old Aryan Vernaculars.

1 The antiquity of the Vedic dialects. Thibaut's estimate of 1200 B. C., Jacobi-Tilak's estimate of 4000 B. C., MacDonell's estimate of 800 B. C. Grierson's estimate of 2000 B. C. adopted as a working hypothesis.

2 Indo-Iranian period taken as 2500 to 3000 B. C.

3 *Prakritic dialects*.—The earliest specimens of Pra-

kritic language in the Aśoka inscriptions of 250 B. C. Four points noted :—

- (1) The extensive use of causal formations with the interposed *p*.
- (2) The corrupt pronunciation of the Sanskrit conjunct consonant *tv* as *tp*.
- (3) The use of the so-called adverbial present participle.
- (4) The absolute indifference to the final vowel in many cases in the inscriptions.

4 Pallava Prakrit inscriptions of the early Christian Centuries in the Telugu countries. The use of the Prakritic future in—*eja*, and of the conjunctive participles in—*tūṇa* and *tūṇam*.

5 Vararuci's Prākṛtaprakāśa, 1st Century B. C. Literature in the Māhārāṣṭri Prakrit,—Kaccāyana's Pāli grammar. Buddhist canonical works.

6 Caṇḍa's Prākṛitalakṣaṇam.—The tradition in regard to the redaction of the canonical works of the Jains in Ardhanāgadhi at council of Vallabhi in the 5th Century A. D.

IV Dravidian Languages.

1 *Tamil* has a literature older than the oldest Tamil inscriptions which begin only from the 7th Century A. D. This literature is referred by some to the 3rd or 2nd Century A. D. Marked difference between the old and the modern Tamil.

2 *Malayalam*. Old inscriptions found in Malabar are wholly in Tamil. Inscriptions in Malayalam and Malayalam literature are quite recent.

3 *Kanarese* inscriptions begin in the 6th Century. The earliest literature extant cannot be referred to a period earlier than the 9th Century.

4 The earliest *Telugu* work extant is referred to the 11th century, but the inscriptions begin earlier, one of them being referred to the 7th or 8th century.

V Tense Suffixes in Dravidian.

A. Tamil.

1 Verbal bases. Definition of *u* bases.

- 2 Accent. Classification of verbs accented on the final vowel. Classification of other verbs.
- 3 Present tense suffixes *kiru* and *kinru*, corruptions in colloquial language and vulgar speech.
- 4 Past tense suffixes *t*, *d* and *n*.
- 5 Future tense suffixes *pp*, *v* and *b*.
- 6 Participles, the Infinitive and miscellaneous.

B. Old Tamil.

- 1 Tolkappiyam.
- 2 Past tense formed as in modern Tamil.
- 3 The K Aorist.
- 4 The T Aorist.
- 5 The P conjugation which furnishes the modern future tense.
- 6 The use of the 2nd person singular Imperative as the basis of new verbal formations.
- 7 The absence of *kiru* and the rare use of *kinru*.
- 8 Participles, the Infinitive and the Subjunctive.

C. Malayalam

- 1 The use of participles as finite verbs without personal endings.
- 2 The present tense suffix *kunnu*.
- 3 The past and the future formed as in Tamil.

D. Kanarese.

- 1 Extension of *u* bases in modern Kanarese.
- 2 The present tense suffixes *utā* and *uttā*. Criticism of Kittel's view that the final *e* of the present tense connotes emphasis.
- 3 The archaic present tense in *dap* or *tap*, and the change of meaning which it is supposed to have undergone in its present corrupted form without either of the consonants *d* or *p* of the suffix.
- 4 The past tense suffix *d* changed in some cases to *t*.
- 5 The future tense in *v*.
- 6 Old special formations in *kum* and *gum*.

7 The participles and the Infinitive.

E. Telugu.

1 Extension of *u* bases by the addition of the suffix *chu*, to all other bases *u*.

2 Two present tense suffixes. (1) *chun* or *tun* (2) *tā*.

3 Four past tense suffixes. 1 *yā*, 2 *ittu*, 3 *inā*, 4 *en* from *yān*, this last used only in the 3rd person singular and neuter plural without personal endings.

4 Two future suffixes *e* and *eda*, having alternative forms in the 3rd person singular and neuter plural.

5 One Aorist tense in *du* (old *tu*), the forms in the 3rd person being derived from the base without any tense suffix.

6 Participles, the Infinitive and miscellaneous.

F. General Remarks.

1 Great changes in the conjugation of verbs since the pro-Dravidian period.

2 Loss of the *K* aorist in Telugu and Kanarese leaving only a few verbal bases in *gu*.

3 Loss of the *t* aorist in all the languages except Telugu.

4 Loss of the *p* tense in Telugu, leaving only infinitives in *pan* and some active verbs ending in *pu*.

5 Loss of the *iya* past tense in Tamil.

6 Extension of Telugu verbal stems by the formative suffix *chu*, and Kanarese causal stems by *su*.

7 Formation of new present tenses with *kiru*, and *kirru* in Tamil, with *tā* and *tum* or *chun* in Telugu, and with *utā* or *uttā* in Kanarese.

8 Formation of new future tenses in Telugu with *e* and *eda*.

9 All the new forms enumerated above appear to be based on the model of grammatical forms in Prakrit and Sanskrit, and formed with materials taken from those languages. The same remark applies to some of the old forms in the pro-Dravidian stage.

*VI. Derivation of the Dravidian suffixes.**A. Certain Miscellaneous Forms*

1 Telugu *chu* and Kanarese *su*. Caldwell's identification of these formative suffixes with Tamil *kku* rejected as

being based on the equation of wrong elements. Suggested identification of these suffixes with the Atmanepada suffixes of the 2nd person singular imperative in Pali and Māhārāṣṭri respectively, *viz.* *ssu* and *su*.

2 Suggested identification of the Dravidian causal suffixes *i*, *vi*, *pi* with the Indo-Iranian suffixes, *i*, *pi*. The view of Caldwell that the Dravidian causals may be derived from the Dravidian verbal nouns with the addition of the verb *i* "to give."

3 Identification of the Telugu benedictive suffix *tan* with *tam*, the suffix of the Atmanepada singular 2nd person imperative in Pali.

4 Identification of the Telugu benedictive suffix *edum* with the Tamil-Malayalam suffix in phrases like *avan vāla-num* or *vāleenum* which is taken to be a corruption of the anomalous *vendum*, 'it is required' but appears to be derived really from the Vedic suffixes in the gerundives of the form *śuṣrūṣenyam*.

5 Identification of Tamil benedictive suffixes, *i*, *iya*, *iyan* with the forms which the Vedic suffix *iy* takes in the verbs *bhunjīta*, *bhunjīyātām*, *bhunjīran*.

6 Identification of the Telugu future suffix *e* with the ending of the Parasmaipada Potentials in Prakrit which appear to have been of the same form *bhave* in all persons and numbers for which forms are available.

7 Suggested identification of the Telugu future suffix *eda* with the *ejjā* and *ejjū* which are stated by Vararuci (vii 20, 34) to have been used as finals in the definite future; *ja*, being pronounced dentally in Telugu, may become *da*; instances of such change.

8 If these identifications are correct, the remarkable fact comes out that the immigrants from the north were in the habit of adding Aryan suffixes to Dravidian verbs

B. Past tense suffixes.

1 The suffixes *tva* and *ya* in classical Sanskrit. The forms *tvī*, *tvā*, *tvāya*, *tya*, *ya* in the Vedic dialects; and *thwa*, *twa*, *ta* and *ya* in the Avesta. The changed forms in Prakrit are:

(a) *dua* in Śaursēnī for two verbs *gam*, *kṛ*.

- (b) *tūṇam* and *tūṇa* in the Pallava inscriptions.
- (c) *ttu*, *ttā*, *ttum*, *ppi* in Arsa Prakrit.
- (d) *ya* appears with a long vowel in two-thirds of the number of forms in the Vedas. It becomes *ia* in Prakrit and *i* in the Apabhrāmī.

2 The conjunctive participle of bases ending in *u* in all Dravidian languages are formed by suffixing *i* to the base which then loses the final *u*. This corresponds to the ending of conjunctive participles in Apabhrāmī and most of the neo-Aryan vernaculars.

3 The form *kōṭṭyā* in Telugu to which personal endings are affixed is on the same model as the majority of vedic forms in *yā*.

4 The old Tamil forms *iya* are bases on the Prakritic model in *ia*.

5 The Tamil-Telugu suffix *ina* corresponds to the Ardhamāgadhi suffix *yāṇam* which has become *i-ne* in Gujarātī, and *ina*, *in* etc., in several Bhili and other dialects spoken in Gujarātī and the adjoining parts.

The view of Sir Herbert Risley who considers the *ne* of the Gujarātī suffix to be a remnant of *tane* and of L. P. Tessitori who considers it to be a corrupted remnant of *kane* examined and rejected.

6 Telugu suffix *ittu* identified with the Arsa Prakrit suffix *ttu* which will become *ittu* after consonantal bases. Tamil suffixes *ttu* and *tu* also fall under this head.

7 Kanarese *du* and Tamil *ndu* which is perhaps merely *du* nasalised to preserve the medial pronunciation may be compared to Saūrasēnī *dua* which like *ia* may drop the final *a* and become *du*.

C. Present tense suffixes.

1 Tamil *kiru* identified with the Sanskrit root *kṛ* "to do" which is used largely in the neo-Aryan vernaculars as an auxiliary verb to form conjunctive participles.

Caldwell's and Sten Konow's explanations of this suffix examined.

2 Tamil *kiṇru* and Malayalam *kunnu*. Identified with Prakrit verb *kunu* arising from *kṛṇu*, the Sanskrit verb

kṛ with the conjugational suffix. Telugu pleonastic *konu* referred to the same origin.

Neo-Aryan analogies. Explanations of Hoernle and Tessitori.

3 Telugu *tā*. Probably *tam* the genitive plural termination of the present participle in Prakrit.

4 Telugu *chun, tun*. Usual explanation referring these to the Malayalam *kun* questioned.

5 Kanarese *utā, uttā*. Suggested identification with *huttam* and *hutto*, two of the forms of the present participle of *bhu* "to be" in the Māhārāṣṭri Prakrit.

D. Future tense suffixes.

1 Dravidian *p, b, v* and its correspondence in meaning and in use with the neo-Aryan *b* derived from the gerundive suffix *tavya*. Suggested derivation of the Dravidian *p, b, v*, from the Vedic-Avestic gerundive suffix *tvā*. Possible affiliation of Kanarese *dap* with *tavya*.

2 Suggested derivation of the suffixes indicating quality or condition from the Sanskrit *tvam*.

E. Aorist suffixes.

1 Dravidian *ku*. Perhaps derived from the Sanskrit *kṛ* which assumes the form *ku* in colloquial Tamil in the verbs *irukku, kidakku*. Hindi analogies.

2 Dravidian *t*. Possible analogies in the Vedic and Avestic dialects.

Conclusion.

If the above identifications or even a portion of them be accepted, it necessarily follows that the so-called Dravidian languages have undergone vast structural changes since they came to be spoken by immigrants from the north. This paper refers only to tense-suffixes; but a consideration of the personal endings and of the vocabulary brings out the same tale.

Old Telugu Literature. By K. SITARAMAIYA.

The Andhras are an old race having references about them in many ancient works like the *Aitareya Brāhmaṇa*

and the *Mahābhārata*. They became powerful and reigned over vast territories. They can be traced back to 1000 B. C. The language of this race was originally a spoken dialect and the alphabet was invented later. From indications in some Sanskrit works, the Telugu script appears to be older than the Sanskrit one, though some authorities maintain that it was modelled after that of Sanskrit. *Paiśaci*, a vernacular Prakrit which is now extinct and which once possessed a glorious literature, is considered to be the mother of the Dravidian sisters. Telugu, though a Dravidian language, has so much transformed itself that almost all Telugu grammarians speak of Sanskrit as its *prakṛti*. Telugu has three names in vogue—viz. Telugu, Tenugu and Āndhrabhbāsā. *Paiśaci* literature should have served as one of the sources of Telugu literature. But the influence of Sanskrit literature is paramount, and in the domain of prosody Kanarese influence may be identified. Religion, being the first inspiring topic of any poetry, should have been such even in Telugu literature, and almost the whole range of later Telugu literature has religion for its background. Though prose is of a later origin in any literature, oldest Telugu works are in mixed prose and poetry but this prose has all the qualities of poetry except rhyme. 1500 A. D. may be considered as the lower limit of old Telugu literature, and Nannayabhaṭṭu may be taken as the pivot, because he stands at the threshold of history. Nannayabhaṭṭu is praised as the traditional first Telugu poet, but there is ample evidence to prove the contrary. Some literature before him has been recently found out, which consists of an inscription ascribed to Yuddhamallu who lived in the ninth century A. D. and a metrical composition *Kumārasambhava* by Nannecoda, a Cālukya king who lived in the tenth century A. D. Both of them are full of linguistic data to prove their pre-existence. Their perusal at once proves to the reader, that they belong to a period when there was greater relationship between Telugu and its Dravidian sisters, than at present. Gradually Sanskrit literature began to wield its influence. The whole period between the earliest Telugu poetry to 1500 A. D. may be roughly called the age of translation. *Bhārata*, *Bhāgavata*, *Rāmāyaṇa* and many Sanskrit Purāṇas were translated.

Later, translation gave its place to adaptation, and Kāvyas took the place of Purāṇas. From a combination of the Puranic and Kāvya styles a fresh literary type called the "Prabandha" was evolved, and it was perfected by the beginning of the sixteenth century. This Prabandha style held the field nearly for three centuries till the end of the last century. The literature of these three centuries is purely imitative, and lacks in originality. A reaction has set in and poets have begun to take license, sometimes violating even the laws of metre. Drama, Novel, Essays, and almost all types of literary composition are being attempted with some degree of success, and the present is the period of renaissance to Telugu literature.

Telugu language and literature. By G. SOMANNA.

- 1 Extent of Telugu language: Area and population.
- 2 Antiquity of the Āndhra race: References in Aitareya Brāhmaṇa, the Rāmāyaṇa and Mahābhārata and writings of Megasthenes.
- 3 Derivation of names Āndhra and Telugu.
- 4 Contribution by Āndhras to Sanskrit culture: Bhava-bhūti, Mādhava, Vidyāraṇya, Jagannātha Pandita, Vidyā-nātha, Mallināthaśūri, Caitanya and Vallabhācārya.
- 5 Affinities of Telugu with other languages: Scythian, Dravidian, and Sanskratic.
- 6 Sanskratic element in Telugu: Substantives, Pronouns, Compounds, Verbs and Adverbs.
- 7 Classification of Telugu words: Tatsama, Tadbhava Deśya and Anyadeśya.
- 8 Earliest literature: First Telugu work and first Telugu grammar; the influence of these on subsequent literature.
- 9 Grammatical controversy: Classical Telugu and modern Telugu ; relative merits and demerits.
10. Subsequent literature: Prabandha, Drama, Novel, Journal, and Periodical.

The Pronunciation of the hard *r* in Dravidian languages. By C. P. VENKATARAMA AIYAR.

The aim of this paper is to determine the exact place of articulation of the consonant known as the hard *r* in Dravidian languages, and ascertain also the manner in which it is articulated.

This has always been a moot point in Dravidian philology. Philologists hold conflicting views on this point. Some think that the hard *r* is only a rougher variety of the lingual *r* while others hold that it is a characteristic Dravidian consonant which is pronounced *tr*. Nor is the evidence furnished by grammars in the several Dravidian languages quite conclusive. The author of a grammar in Kanarese thinks that *r* and *r* have the same place of articulation. The author of a grammar in Malayalam classifies them under cerebral consonants. In Telugu the hard *r* still exists in many words of Dravidian stock, which are current even to this day in the same form and meaning in other Dravidian languages also.

The evidence from orthography is very interesting study, as it helps us to establish the fact that *r* and *r* are different. The hard *r* which occurs in Old Telugu and in Old Kanarese has been replaced in very many cases by the lingual *r*, though at one time the hard *r* did exist in these languages in old orthography, as well as in the pronunciation to a certain extent. But there is a tendency to ignore the hard *r* or often to confuse it with the lingual *r* due chiefly to a lack of proper appreciation of the sound values of these consonants. This perhaps accounts for the curious appellation by which some people would denote the hard *r*. They speak of it as the big *r*, as opposed to the lingual *r* which is named the little *r*. There is no point in such an unscientific nomenclature.

The hard *r* does not exist in Sanskrit. It exists only in the Dravidian languages and hence the investigation in respect of the pronunciation of this consonant is confined to the sifting of the available materials in the Dravidian languages bearing upon this point.

The materials that exist for this purpose are extensive enough and go back to very early times in the history of the Dravidian languages.

- (1) There is first of all the testimony of ancient grammarians whose direct statements about the sounds in the language are valuable for the investigation in phonology. Especially, Tamil grammar, historically studied, throws considerable light upon the problem. The rules in the Tamil grammars, as well as the interpretation of such rules by different commentators, go to show that *r* is a peculiar Dravidian consonant which exists in the languages from very early times.
- (2) The indirect evidence of spelling is also as reliable as the statement of phoneticians. Orthography brings out, especially in inscriptions, certain special phonetic features.
- (3) An important criterion is metre. In the Dravidian languages, words containing hard *r* do not rhyme with words containing the lingual *r*. But in consonantal assonance the hard *r* generally rhymes with breathed stops.
- (4) In common with the plosives, the hard *r* when doubled sounds as a breathed consonant. The real pronunciation of stop consonants is heard only in such words where they are doubled. When they occur medially and singly, they are spirants and partake of the nature of voiced consonants.
- (5) The hard *r* is never used as an absolute final, whereas the lingual *r* is absolute final.
- (6) In words where the hard *r* occurs as the final sound, an enunciatory vowel comes in as an off-glide to silence. In this aspect the hard *r* behaves as a stop consonant.
- (7) The stop consonants *p*, *t*, *c*, etc., shorten the vowel quantity of the final enunciatory vowels in dissyllabic words. In vowel sandhi this vowel,

which is not very audible, is elided. Such vowels are elided in sandhi when they occur after hard *r* as well. No such final enunciatory vowel is required to pronounce final lingual *r*.

- (8) The place of articulation of the hard *r* is given in a separate rule of grammar, distinct from those in which the various other consonants are described. This would suggest that the hard *r* has a distinct and well-defined place of articulation.
- (9) *r* being a rolled sound, a double *r* in words is impossible, whereas double *r* is very common.
- (10) Both *r* and *r̥* are not absolute initials. This is the only point in which they apparently agree. But the cerebral stop also is not absolute initial in Dravidian languages. Hence this proves nothing.
- (11) The several pairs of words of one syllable having the same form apparently, but differing in meaning according as they contain the hard *r* or the lingual *r*, in the Dravidian languages, establish the distinction between them.
- (12) In the combination of consonants, the hard *r* combines only with the guttural and labial stops, but not with the dental or the cerebral stops probably because the place of articulation of the hard *r* is very near the area where these are produced.
- (13) The hard *r* has a corresponding nasal *n* which is distinct from the dental nasal and functions characteristically as an absolute final.
- (14) The past participle of monosyllabic verbal themes ending in *r* is formed by reduplication of the *r* in all the Dravidian languages. In this matter *r* behaves as a stop.
- (15) In Orthography in Tamil, when a word ending in lingual *r* comes in contact with a word beginning with a stop consonant like *k*, *c*, *p*, the stop sound is doubled, the incoming stop being in the

nature of an off-glide from one manner of activity to another. No such glide sound is audible when *r* is followed by *k*, *c*, or *p*.

- (16) In borrowings from Sanskrit into Tamil, the dental mute before the other explosives in such words is replaced by the hard *r* in Tamil.

The cumulative effect of the foregoing investigation would lead to the irresistible conclusion that the hard *r* is an *alveolar plosive*; and that the hard *r* and its corresponding nasal with which the enumeration of the Tamil consonantal system ends, are characteristic Dravidian consonants, which are still preserved in Tamil.

VIII.—Philosophy.

Vaisnavism in South India before Rāmānuja. By S.
KRISHNASWAMI AIYANGAR.

The history of Vaisnavism before Rāmānuja in the Tamil country reaches back to very early times. Sir R. G. Bhandarkar, in his book on *Vaiṣṇavism Śaivism etc.*, contributed to the Encyclopædia of Indo-Aryan Research, has taken the following positions in respect of this history. The Vaisnava religion was propagated by a series of teachers, the earlier among whom are generally known as saints (Ālvārs), and the later of them teachers (Ācāryas). The latter class goes back five generations from Rāmānuja for its beginning, and the former class begins before that time and counts 12 names among them. In regard to these latter, Sir Ramkrishna takes up the following positions :—

- 1 That Ālvār Kulaśekhara must have lived some time about the middle of the 12th century;
- 2 That, in consequence, the order in which these are usually named is unreliable; and
- 3 That the earliest of these Ālvārs must have flourished about the time of the revival of Brahmanism and Hinduism in the north, and therefore about the 5th or 6th century A. D., admitting the possibility, however, that Vaiṣṇavism might have penetrated to the south as early as the first century A. D.

An examination in some detail of these positions separately goes to prove that Ālvār Kulaśekhara must have lived long anterior to the 12th century A. D. There is an inscription of A. D. 1088 making provision for the recital of one of his works. The commendatory verse to his work Perumāl Tiromoli is made by Maṇakkāl Nambi four generations before Rāmānuja. On other general historical grounds Kulaśekhara may have to be ascribed to the 6th or 7th century A. D.

In regard to the second of his positions, there has been a traditional order recognised from the days of Rāmānuja. The

order seems to have been regularised and put into its present form by Vedānta Deśika in his work Prabandhasāram, which seems to have been adopted by the greater hagiologists who were followers of Deśika. But the question has really to be settled not on the details of history preserved by the hagiologists, but by a study of their own works, which in many cases, provide internal evidence for ascribing them to particular periods. Examining these carefully, we can ascribe, for very good reasons, the last of the traditional Tirumangai Ālvār to somewhere about the middle of the 8th century, Periyālvār to the beginning of the 7th century and the early Ālvārs, Poygai Ālvār and his two companions, to the age of the Śangam in the early centuries of the Christian era. Neglecting the two Ālvārs whose works form a comparatively negligible portion of the Prabandham, the others lend themselves to this classification which goes a long way in supporting the order, such as is recognised by the Vaisnavas, whatever errors of detail may be discovered in the accounts preserved by the hagiologists. In regard to Nammālvār a careful examination of all the evidence adduced goes to prove that he must be given a place immediately after the first Ālvārs, a position ascribed to him in the traditional order.

Apart from the history of these Ālvārs merely, there are numbers of references in secular literature to Vaisnavism, specially in the work of the Śangam collection called *Paripādal*. There is a clear evidence in this of a knowledge of the Purānas etc., and of the Pāñcarātra Āgama; there is even direct reference to the Saiva Āgamas. On a broad review of the information that is available in early Tamil literature, it comes out that Vaisnavism in the Tamil country certainly goes back to the commencement of the Christian era as Sir Ramkrishna surmised; and the form in which that Vaisnavism comes to our notice in this early literature would presume an anterior history for this Vaisnavism, which might take us back to the beginnings of its history much anterior to the commencement of the Christian era. This investigation raises various other issues such as the date of the *Rāmāyaṇa*, the date of the *Mahābhārata*,

the age of Manu, each one of which will have to be investigated separately. These investigations might lead to considerable revision of the views at present holding the field on many of these particular questions.

Fallacies in Indian Logic. By G. C. BHATE.

1 The definition and classification of fallacies from the logical and psychological point of view.

2 The object of the paper is to bring out the true nature of fallacies of Indian logic and show the falsity of the view which compares them with the formal fallacies of Aristotelian logic.

3 The similarity and peculiarity of Indian analysis of reasoning. Its admission of a *single* type of Barbara, hence no moods and figures.

4 Contrast between the Aristotelian and Indian presentation of the probative force of an argument; the Aristotelian was mathematical, while the Indian was discursive and dialectical. Hence the importance of distribution of terms in Aristotelian syllogism and its absence in Indian syllogism.

5 Meaning and significance of technical terms in Indian conception of reasoning. The force of the argument depends upon the right or wrong reason.

6 The theory of fallacy based on this conception.

7 Description and exemplification of the five fundamental fallacies of Indian logic.

8 Their similarities and dissimilarities.

9 The correct conception of the error in argument from the modern point of view.

10 All the Indian fallacies turn out to be cases of material fallacy, where either the major or the minor premiss is wrong.

11 Hence the simplicity of detection of fallacies in Indian Logic.

12 Recognition of formal fallacies under different names.

13 Description of Chala, Jāti and Nigraha.

- 14 Stern ambiguity of language found in Chala.
- 15 Petilio principii found in Annyonyāśraya, in Pra-karanaśama and in one sense of Asādhāraṇa.
- 16 Irrelevancy found in some of the Nigrahasthānas.
- 17 Conclusion.

A Note on Śiva and Phallic worship. By G. K. CHANDORKAR.

Argument:—In naming certain aboriginal people, the *Rgveda* has mentioned only the totems which they had: Such as Aja, Bheda, Śṛga, Pārāvata, and others.

Śivāḥ, Bhalānas, Pakthus have also been mentioned in the same.

'Śiva' in Sanskrit means 'Śisna'-phallus. Hence Śivāḥ were the people who had phallus as their totem :

We have in two places 'Śiśnadevāḥ' mentioned in the *Rgveda*, as the enemies of the Aryas. 'Śivāḥ' and Śiśnadevāḥ, therefore must be the same—meaning people with a totem of phallus.

Hence we have conclusive evidence to prove the co-existence of phallic-worship among the aboriginal tribes with the Vedic Rsis—a conclusion not countenanced by Dr. Muir.

'Trividham Anumānam' or A Study in Nyāya Sūtra I. i. 5. By A. B. DHRUVA.

1 Nyāya-Sūtra I. i, 5 as interpreted in :—

- (1) Vātsyāyana's *Nyāyahāṣya*
- (2) Uddyotakara's *Nyāyavārtika*
- (3) Vācaspatimiśra's *Nyāyatātparyatīkā*
- (4) Īśvarakṛṣṇa's *Sāṅkhya-kārikā*
- (5) Gaudapāda's S. K. Bhāṣya
- (6) Māṇihara-*Vṛtti*
- (7) *Pūrvamīmāṁsābhāṣya* of Śabarasvāmin
- (8) *Anuyogadvāra*.

2 General uncertainty among commentators :—

While there is practically complete unanimity as regards the names of the three types of Anumāna, there are serious differences in respect of what the names are intended to convey. Thus :—

- (1) पूर्ववत् may mean inference from a cause, or simply inference from former experience, or even recognition from a formerly observed mark;
- (2) शेषवत् may mean an inference from effect or inference from a part, or inference of one member of a pair of correlates from the other, or a totally different type of inference, viz. inference by exclusion;
- (3) सामान्यतोदृश् may mean inference based on mere likeness or uniformity of experience, without causation at its back, or it may mean inference of supersensible truths through abstract generalities.

Gotamā himself has borrowed the terminology of the Sūtra (1, i, 5) from "Naiyāyikas" who were the ancient Mīmāṃsakas. Proof of this, and of the antiquity of Indian Logic generally. Importance of the Jain tradition about the composition of the Āgamas, and its bearing upon the question at issue. Results summarized :

- (1) The first glimmer of the light of Indian Logic belongs to the Pre-Buddhistic age of the 'Parsads'
- (2) The early beginnings of a systematic art of Logic belongs to the latter part of the same age.
- (3) The art tends to become a science in the period of early Buddhism and its contemporary Brahmanism.
- (4) It has established itself as a science before 300 B. C.
- (5) The results of Brahmanical thought in this department, as linked with Theism and Realism, get summed up in the Nyāya Sūtras of Gotama, as similar work of Jain and Buddhist logicians carried on in harmony with their own religious and philosophical dogmas is represented in the corresponding fragments of the Jain and Buddhist literatures.

(6) Gotama's Sūtras—not necessarily all their contents, some of which are earlier—belong to the latter half of the Pre-Christian Sūtra period. The work may be dated somewhere about 200 B. C., in the age of the Āhnikas or Daily Lessons, like the Navāhnikas of Patanjali's *Vyākaraṇa Mahābhāṣya*.

3. Comparison of the commentaries *inter se*. The light it throws upon the chronological relations of (1) Vātsyāyana (2) Māṭhara and (3) Anuyoga. A passage of *Anuyoga*. Priority of Māṭhara to *Anuyoga*. The dates of *Saśitantra*, the *Sāṅkhya-kārikā*, the *Māṭharavṛtti* (all the three referred to in *Anuyoga*.) Takakusu—Belvalkar—Keith controversy. Their view discussed. Vātsyāyana earlier than Māṭhara; *Māṭharavṛtti* may with a great deal of probability be referred to the first century A. D., Vātsyāyana a century or two earlier. This will account for the vast development of the Science of Logic which took place in the interval between Vātsyāyana and Māṭhara. The date of Vātsyāyana not a settled fact. Mādhyamika Philosophy before Nāgārjuna and *Lankāvatāra Sūtra*.

व्याकरणे वेदान्ते च ग्रन्थकाराणामनवधानानवधानाभासाः तत्रसक्तं चान्यत् ।

गजेन्द्रगडकरोपाह्वालाचार्याणाम् ।

१ अथोपोद्घातः । (अ) व्याकरणशास्त्रे विद्यमानाः प्रन्थकाराः प्राचीनाः
(आ) कोयं वृत्तिकारः

अथानवधानानि ।

१ व्याकरणशास्त्रे:—१ भगवतः पाणिनेः १ वा क्यष इति सूत्रे । २ भगवतः पन्तजले:

१ आम इति सूत्रे, २ प्रपितामहचरणानां विषमीग्रन्थे च । ३ जयादित्यवामनयोः १ कुमा-रशीषयोरिति सूत्रे, २ काशिकाकर्तारौ कौ, ३ तत्त्विवासदेशः कः । ४ भट्टोजीदीक्षितानाम् १ लघावन्त इति फिद्सूत्रे, २ लुभो विमोहन इति सूत्रे च ।

तेषामनवधानाभासाः ।

१ प्रादृहोढो इति वार्तिके, २ हन्तेरत्पूर्वस्येति सूत्रे च । ५ शेखरकृतां नागेशभट्टानाम् १ इकःकाश इति सूत्रे ।

२ वेदान्तशास्त्रे:—१ भगवतां शंकराचार्याणाम् १ उभयथा च दोषादिति सूत्रे, २ छान्दोग्योपनिषद्भाष्ये, ३ मनस्मृजातपर्वभाष्यमाद्यशंकराचार्यकृतं नेति विचारः । २ आनन्द-

ज्ञानगोविन्दानन्द (रत्नप्रभाकार) योः १ तदुपर्येपि बादरायण इति सूत्रे, २ आन्दोग्यभाष्य-
टीकायामानन्दज्ञानस्य, ३ ऐतरेयोपनिषद्भाष्यप्रश्नोपानिषद्भाष्यटीके आनन्दज्ञानकृते न। ३ श्री-
मदानन्दतीर्थभगवत्पादाचार्यटीकाचार्ययोरनवधानाभासौ, १ ईक्षतेनीशब्दमित्यत्र, २ पूर्व-
विकल्पः प्रकरणात् ।

The Yogiśvara Yājnavalkya, his Life and Philosophy,
Chronology and Contemporaries. By P. B. JOSHI.

It is generally believed that Śankarācārya was the founder of the School of Vedanta Philosophy. This is true to some extent, but it is not literally true and in my opinion Yājnavalkya was, if not the chief, at least one of the original founders of the School of Brahma-vidyā. And the great Ācārya has at the beginning of his commentary on Brhadāraṇyakopaniṣad indirectly admitted this fact.

Yājnavalkya was a scholar of marvellous genius and high attainments and as a matter of fact he was acknowledged to be the greatest original thinker and philosopher of his time; and that is the reason why in the Upaniṣads, in the Purāṇas and in the Smṛtis, by sages like Parāśara and others, he was styled Yogiśvara or the Lord of Philosophers. It is therefore sad to find that the life and writings of this sage of gigantic intellect should not have received a wider publicity than they have received at the present moment. As the information about Yājnavalkya lies scattered in various Sanskrit works such as the *Mahābhārata*, *Upaniṣads*, *Śatapatha Brāhmaṇa*, *Bhāgavata*, *Viṣṇu*, *Āditya*, *Skanda* and other Purāṇas and Smṛtis, an attempt has been made in this paper, on the authority of these sources, to give a connected narrative of the life and writings of this great philosopher and law-giver of India.

In the city of Mithilā, there lived a pious Brahmin named Devarāta who was, owing to his generosity, nicknamed Vāja Seni or food-giver. As he had no son, he performed many sacrifices and as the result of his piety, he was blessed with a son whom he named Yājnavalkya. After being invested with the sacred thread, Yājnavalkya studied the *R̥gveda* under Bāskala, the *Sāma* and *Atharva*

Vedas under Jaimini and Ārunī (Uddālaka) and the *Yajur-Veda* under his uncle Vaiśampāyana.

While he was studying under Vaiśampāyana, some disagreement occurred between Yājnavalkya and his uncle and as the result of this dispute, he left his uncle and went to the Himalayas where he practised penance. And as the result of his penance and special prayers, the God of Light was pleased with him and he became inspired. And by the favour of the God of Light Yājnavalkya was able to compose the white *Yajur-Veda*, *Śatapatha Brāhmaṇa* and other works on Hindu law and philosophy. All the mantras in the *Yajur-Veda* of Yājnavalkya are most systematically arranged and they are not mixed here and there with the Brāhmaṇas as is the case with the old *Yajur-Veda*. And for this reason as well as for the superiority of its philosophy, the *Yajur-Veda* of Yājnavalkya came to be styled as Śukla or bright, as the Taittirīyas were called Kṛṣṇa or black. Yājnavalkya divided the white *Yajur-Veda* into fifteen branches such as Kāṇva, Mādhyandina, Jābāla, etc., and all of these came to be called Vājasaneyins.

Yājnavalkya had two wives named Maitreyī and Kātyāyanī and the latter bore him three sons, named Candrakānta, Mahāmegha and Vijaya. Maitreyī was highly educated and before his departure to forest, at her special request, Yājnavalkya expounded to her the doctrine of Brahma-vidyā; and his philosophy is seen at its best in his dialogues with Maitreyī and Gārgī and also with Janaka and Sākalya.

King Janaka had organised a sacrifice to which learned Brahmins were invited and he had offered a gift of a thousand cows to anyone who was the most expert in the knowledge of Brahma-vidyā. As no one accepted the challenge Yājnavalkya got up and asked his pupils to take away the cows. His claim to be the Brāhmaṇa (expert in the knowledge of Brahma) was disputed by the other sages unless and until he gave satisfactory replies to their queries. And Yājnavalkya was able to accomplish this. In reply to Gārgī's question about *cidākūśa* and its abode, Yājnavalkya answered "Cidākāśa pervades above and below this Universe. It is

imperishable. It is neither large nor small, neither long nor short. It is different from the organs and living creatures. It does not affect and is not affected. It is self-fulgent and free from darkness. It is omnipresent, free from all desires. It is knowledge incarnate—it is *Para-Brahman*. By its will the Sun and the Moon shine in the sky, and the rivers flow. Those who do not know this Brahman and perform sacrifices and other rituals, perform them in vain; because without the knowledge of this Brahman all these become perishable. And after death these persons are born and reborn. But, those who know that Brahman and identify themselves with it, get everlasting salvation."

Yājnavalkya firmly believed in the existence of one Supreme God whom he called Brahman or Para-Brahman, and his explanation given to Śākalya, as to how the one Supreme God was turned or symbolized into three and the three into thirty three deities and the thirty three into thirty three crores, is highly interesting. He was the greatest social and religious reformer of his time. He believed in the immortality of the soul and taught that mental adoration was the best form of worship and, that the worship of idols was meant for persons of inferior intellect (मनोमया वरा पूजाः प्रतिमा चात्पत्रद्विनाम्).

Chronology and Contemporaries.

It is now generally admitted by scholars that Patañjali who wrote the *Mahābhāṣya* on Pāṇini's grammar, lived in the second century B. C., and it is therefore believed that the date of Pāṇini cannot be later than 400–300 B. C. On Śākātāyana's and Yāska's theory of the verbal origin of nouns, the whole system of Pāṇini is founded and we find in Yāska's work that he refers to twenty predecessors among whom Śākātāyana and Śākalya are the most important. And we have already shown that Śākalya was a contemporary of Yājnavalkya. In his Sūtras Pāṇini also refers to Pāraskara in the following words, "Pāraskuruprabhṛtini ca Śainjnāyām" and we find that Yāska respectfully refers to Pāraskara at the end of his *Nirukta*. From the above it is clear that Pāraskara lived long before Pāṇini and Yāska. From a careful study of the Śrautā Sūtras of Kātyāyana and the Gṛhya Sūtras of Pāraskara, we come to the conclusion

that both were friends and contemporaries. There is a tradition current among the orthodox Brahmins that the Grhya Sūtras and the Śrauta Sūtras were prepared by Pāraskara under the guidance of Kātyāyana. The commentator on the *Pratisākhya* of the white Yajur-Veda, at the beginning of his work pays respectful compliments to Kātyāyana and describes him as the most distinguished disciple of Yājnavalkya. This clearly shows that Kātyāyana was a disciple of Yājnavalkya and therefore the period of the latter must have been earlier than that of the former. This Kātyāyana who was the author of the Śrauta Sūtras, should not be confounded with the later Kātyāyana who wrote the Vārtikas on Pānini's Sūtras.

In the *Mahābhārata* Sabhāparvan, Chap. 33, there is an account of the Rājasūya sacrifice performed by king Yudhiṣṭhīra. From that account we find that at this sacrifice, the sage Vyāsa acted as *Brahmā*, Susama held the office of *Udgātā*, Paila was appointed as *Hotā* and to Yājnavalkya was assigned the important duty of *Adhvaryu*. We therefore find from the above account, that Yājnavalkya was a contemporary of Vyāsa, Yudhiṣṭhīra and Paila.

Again, from *Harivamśa*, Chap. 142, we find that Brahmadatta, a disciple of Yājnavalkya, was the family priest, friend and fellow-student of Vasudeva, the father of Sri Kṛṣṇa, and at the Aśvamedha sacrifice, performed by Vāsudeva, there were present, Vyāsa, Vaiśampāyana, Yājnavalkya, Sumantu, Jaimini, Brahmadatta, Jābāla and Devala. Thus we come to the conclusion that the period of Yājnavalkya was earlier than that of the *Mahābhārata*.

Among the fifteen chief disciples of Yājnavalkya, after whom the fifteen recensions of the white Yajur-Veda were called, was one named Kanva. Whether this Kanva was identical with the sage Kanva of Kālidāsa's *Śakuntalā* or not, cannot be definitely ascertained. But it is worthy of note that in the *Śatapatha Brāhmaṇa* of Yājnavalkya, we find the first allusion to Dusyanta, Bharata and Śakuntalā the heroes and heroine of Kālidāsa's *Śakuntalā*; and there is not the least doubt that the plot of Kālidāsa's drama, *Vikramorvaśiya*, was written on the basis of the story of

Urvasi and Purūravas, first narrated at full length in the *Śatapatha Brāhmaṇa* of Yājnavalkya—a work which, as Prof. Macdoneli rightly observes, is next to the *Rgveda*, the most important production in the whole range of Vedic Literature.

The relation of the *Bhagavadgitā* and the *Bādarāyaṇasūtras*. By R. D. KARMARKAR

The essay is mainly concerned with a criticism of the verse कृषिभिर्वृद्धा गीतं... (Bhag. XIII. 4). It is shown that the expression Brahmasūtra in the verse cannot be taken to mean loose passages from the Upaniṣads or a prose treatise like the sutta of the Bauddhas but must mean a work in the Sūtra style. It further controverts Mr. Tilak's view that Brahmasūtra means *Bādarāyaṇasūtras* and that one and the same author was responsible for both the *Gitā* and the *Bādarāyaṇasūtras*. Mr. Tilak's view is refuted on the following grounds :—(1) The *Gitā* based upon the Sāṅkhya and the Yoga philosophy, while the *Bādarāyaṇasūtras* try to refute them. (2) The *Gitā* makes no clear allusion to Buddhism, while the *Bādarāyaṇasūtras* take great pains to refute the Buddhistic doctrine in detail. (3) The *Gitā* introduces a new terminology Kṣetra and Kṣetragni in the thirteenth chapter only, where a reference to the Brahmasūtras is made, but the *Bādarāyaṇasūtras* do not contain the words Kṣetra and Kṣetragni at all. The expression Brahmasūtra cannot thus possibly refer to the *Bādarāyaṇasūtras*. It probably has reference to earlier the Vedānta Sūtras composed by ancient sages like Bādari, Audulomi mentioned in the *Bādarāyaṇasūtras*.

The Springs of Action in Hindu Ethics. By SUSIL KUMAR MAITRA.

Hindu Ethics is social ethics and psychological ethics and culminates in the Philosophy of the Absolute as the highest stage of the spirit.

The Social Ethics of the Hindus is embodied in a scheme of Varṇāśramadharmaś or duties of station in life. while their Psychological Ethics includes a comprehensive

analysis of volition and of the springs of action as well as practical schemes of Cittasuddhi or subjective purification based thereon. Lastly, their Philosophy of the Absolute is expounded in the various schemes of Mokṣa or Transcendental Freedom whether regarded as a state of self-autonomy, or as of extinction of self-hood in the Absolute, or as of devotion, worship and love.

The subject of the present paper "The Springs of Action in Hindu Ethics" is part of the psychological ethics of the Hindus and is treated in Vaiśeṣika, Nyāya, Sāṅkhya and Vedānta systems.

The Vaiśeṣikas trace will to two sources or roots namely Desire (Icchā), and Aversion (Dvesa). Desire is classified into egoistic and altruistic. The springs which are compounds of desire are :—Sexual Craving, Appetite for food and drink, Passion, Resolve, Dispassion, Compassion, &c. Similarly the various forms of aversion are :—Anger, Revengefulness, &c.

The Naiyāyikas go further and derive even desire and aversion from something more ultimate viz.:—Error. In consonance with this intellectualism, Jayanta distinguishes two forms of the springs of action, (1) those that are of an intellectual nature and are therefore forms of Error or Moha such as perplexity, vanity, inadvertance &c., and (2) those that are forms of attraction and aversion and are therefore mediately connected with Moha through attraction and aversion.

The Sāṅkhya view is expounded in the system of Patanjali which derives the impulses from three roots namely :—(1) Error, Moha (2) Greed, Lobha and (3) Anger, Krodha. The passions namely cruelty, mendacity, etc. may each arise from anyone of these three sources. They may also determine the subject in various ways, in some cases leading to indulgence through overt acts, in some to acts of persuasion or use of force on others, in some again to mere subjective approval when such acts are perpetrated by others. They are again of various degrees of intensity ranging from the violent and impetuous down to the mild and the feeble. Some passions again are to be uprooted altogether and in all

conditions of the spirit, while others may be permitted under special conditions and circumstances.

Hence the characteristics of Hindu Psychological Ethics are :—(1) The doctrine of psychological composition in regard to emotions and passions; (2) the recognition of the spontaneous, the unreflective and the instinctive in the account of the impulses and passions as having ethical significance; (3) the intellectualistic and the transcendental stand-point in the ethical valuation of the springs of action; (4) the attempt to bridge the gulf between the transcendental and the phenomenal by the recognition of Sāttvika impulses, auspicious tendencies and dispositions; (5) the doctrine of self-autonomy and absolute freedom as the ideal of the transcendental life, the ultimate end or goal in the ethical ordering of the impulses as distinguished from the doctrine of freedom-in-cooperation which is the highest ideal according to Christians and Buddhists.

In the Vedanta view, the springs are classified into auspicious and inauspicious dispositions and tendencies of the mind as determined by habitual past indulgence. The baser tendencies are unreflective and spontaneous, while the purer impulses imply knowledge of the truth. It is pointed out that these desires and longings may exist either in the form of appropriated impulses implying subjective choice or again as passing wishes and mere fancies without any conscious preference above the threshold. The latter, however, indicate a deeper subliminal personality and therefore must not be ignored by the moral philosopher.

Sāṅkara on Buddha. By PANDURANGA SHARMA.

Sāṅkara rejected the Buddha teachings on four grounds. His usual way of accepting the truth is based on three principles. Buddha's not accepting the Vedas as an authority is shown and refuted by Kumārila. It is rejected by all authorities taking their stand on scriptures. The test of reasoning is applied in his scholium. Buddha laid his main stress on ethical matters. Sāṅkara remained silent on this point. Ethical views not inconsistent with his authority

need not be criticised. Buddha was not conversant with the true spirit of deep Brahmanical learning and hence Buddha's hatred towards the vedic religion. Its causes. He was a man of pessimistic views. He only thought over the way to come out of the pain and this was the moral side of Buddhism. Metaphysics was developed afterwards by his disciples. Sūtras of Vyāsa on Buddha in *Bramha-sūtra* are inserted later on. This portion of *Bramha-sūtra* is the fruit of Vyāsa's afterthought and was embodied in the body of the work in its revised edition. At the time of Jaimini Buddhists were non-entities. Explanation of the two interpretations of the two Sūtras of Jaimini prove this clearly. Gautama thought it necessary to record the views of Buddha in his system. At the time of Vyāsa necessity was felt to consider Buddhism at one place in all its sides. Revolutionary change in the literature on this subject. There is a great necessity of considering Buddhism and the social condition of the Bauddhas for the right grasp of Śaṅkara. Śaṅkara adopted the material already assimilated by Gautama, Vātsyāyana, Kumārila etc. Effects of his predecessors on Śaṅkara. Vātsyāyana's objections on Buddhism with their answers are literally adopted by Śaṅkara in *Sārīra*. The work of Nyāya school on the subject is very useful. Kumārila was the best judge. It is evident from many grounds that Śaṅkara had grasped the true spirit of Buddhism and represented it faithfully in his work. He was proficient in the original Pali works on Buddhism side by side with the Sanskrit works on it. Reason for the absence of metaphysical discussions in the Tripitakas is popular Buddhism. The terms used by Śaṅkara in connection with the Bauddhas in his scholium are simply expressive of the bare facts only. Buddha's Avidyā is altogether different from Māyā of Śaṅkara.

The Pada and Vākyā Bhāsyas of *Kenopaniṣad*. By
SHRIDHARSHASTRI PATHAK.

केनोपानिषदि ये भाष्ये शाङ्करत्वेनोपलम्बयेते तथोः पदवाक्यभाष्ये इति प्रथितिः ।
तथोभाष्ययोर्भिन्नकर्तृकत्वमेककर्तृकं वं वेत्यनेन निबन्धेन विमृश्यते ।

श्रीमद्भारतीयः शङ्कराचार्यैः प्रस्थानश्रव्यं भाष्यं सनाथीकृतम् । तत्रेतरामु चोपनि-
षत्सु तथा भगवद्गीतासु तथा बह्यसूत्रेष्वाचाचार्याणामेकमेव भाष्यमत्रैव केनोपनिषदि तद्दृढं
कुतः । अपि वा तेरेव द्विवारं व्याख्यायीयमुपनिषद् । अथवान्यतरद्वाध्यमन्यस्य तत्पी-
ठारूढस्य केवलं नामसाह्यात्मनाम्ना व्यवह्रियते । ततो विभेदज्ञापनार्थं पदभाष्यं
वाक्यभाष्यमिति नाम्ना प्रयिते ते इति । एवं विषये समुत्पद्यमाने भिन्नकर्तृके ने इति
सिद्धान्तः समभवत् तत्र च निदानं बहिरन्तर्वर्तिकारणकलापः । सोऽत्र निबन्धे प्रदर्शितः ।
अन्तर्वर्तिकारणेषु व्याख्यानशैल्यवतरितवाक्योद्दृटपूर्वोत्तरपक्षशास्त्रीयोपोद्गलकानि मुख्य-
तया प्रदर्शितानि । बहिःकारणेषु अन्यतरभाष्यस्यान्यतरस्मिन्ननिर्देशः स्वयं पदभाष्यवा-
क्यभाष्येतिपदानुलेख इत्यादि मुख्यतया प्रदर्शितम् । एवं भिन्नकर्तृक्त्वसिद्धौ तत्पी-
ठार्यापर्यनिधरिणद्वारां पदभाष्यमेवाचाचार्यकृतम् वाक्यभाष्यं त्वन्यस्य कस्यचिदिति
साधितम् । एवं वाक्यभाष्यस्य पश्चात्तनते सिद्धे क्रियतः कालादनन्तरमयं वाक्यभाष्य-
रूपादुर्बभूवेति शंकरानन्दाद्विनिर्देशेन साधितम् । अस्मिन्विचरो भाष्यटीकारुत आनन्द-
ज्ञानस्यान्येषां सांप्रदायिकपण्डितानां च मतानि निर्दिश्य परीक्षितानि । एवं चात्रेतेषाः
साधिताः—पदभाष्यमेवाचाचार्याणां शङ्करभगवत्पूज्यपादानाम् । वाक्यभाष्यं तदनन्तरजं
तद्दुष्यायिनाम् । प्रायो वाक्यभाष्यस्य संपादकास्तत्पीठस्था एव स्युः शङ्करोति नाम्ना
ध्रमजन्यन्यतायाः शुलभत्वात् । आचार्यीष्ठमधिरूढानां विद्याशंकरेति विद्यानृसिंहेति द्वे एव
नामनी यथाक्रमं वर्तते तेन पश्चात्तनैः कैश्चिद्विद्याशङ्करेति नामवद्विरेवेदं भाष्यमकारै ।
ततो भेदज्ञानार्थं वाक्यभाष्येति या पश्चात्तनभाष्यस्य संज्ञा नामनुरुद्ध्य पदभाष्यमिति
पूर्वस्य संज्ञा वभूवेति सुचिष्टतरम् । तत उभयोर्भाष्ययोरेककर्तृक्त्वमेवेति प्रतिपाद-
यितमानां मतानि निर्दिश्य परीक्षितानि ।

पूर्वमीमांसाचाचार्याः तत्रविशेषस्य विवरणे विप्रतिपाति ।

By G. V. PHADKE.

समासेन प्रवक्ष्यामि यदुर्जं व्यासतोऽप्ततः ।
नाथ्येतत्याः लिया वेदा इति रूढिर्दृढा जने ॥ १ ॥
तन्मूलान्वेषणे यल्लो बहुकालं कृतो मया ।
प्रतिपेधश्रुतिस्तत्र प्रत्यक्षा नोपलभ्यते ॥ २ ॥
सृतयो वह्वो लभ्या अधिकारनिषेधिकाः ।
तद्वालादनुमीयन्ते पैरवेदास्तदर्थकाः ॥ ३ ॥
मन्ना वेदेषु द्यन्यन्ते ल्लीभिः पाठ्याः परःशताः ।
श्रुतिस्तत्प्रिक्त्वा तदनुमानं प्रबाधते ॥ ४ ॥
परानुमानतः प्राप्तां लिङ्गकृप्ता श्रुतिः स्वयम् ।
विरुद्धां बाधते लिङ्गं प्रभाणं बलवत्तरम् ॥ ५ ॥

मुनित्रयं पाणिनीयं स्त्र्यधिकारानुवादकम् ।
 प्रथिता व्रद्धवादिन्यो गार्ग्याद्या लोकवेदयोः ॥ ६ ॥
 श्रौतेषु कर्मसु स्त्रीभिराशीर्मन्त्राः पुनः स्वयम् ।
 पठ्यन्ते तत्र मूलं तु 'यावद्वचन' मीर्यते ॥ ७ ॥
 तदाधारो जैमिनीयं 'तस्या यावद्' [जै. ६-१-२४] निगथते
 सूत्रं तदर्थविवृतौ द्वैषमत्र प्रदर्शयते ॥ ८ ॥
 'यावत्' पदं सूत्रगतं ऋमोत्पादि न संशयः ।
 परिमाणं तु तस्यार्थः पूर्वैविवरणे कृतः ॥ ९ ॥
 आशीर्मन्त्रा एव पाठ्याः स्त्रीणां नैव ततोऽधिकाः ।
 नियम्यैव वेदपाठः स्त्रीणां पूर्वैर्निषिद्धयते ॥ १० ॥
 मया स गृह्यते 'यावत्' समस्तोऽर्थेऽवधारणे ।
 अधिकारद्वयं पूर्वं विमृश्य हि विवेकतः ॥ ११ ॥
 स्त्रियैव पाठ्यास्ते मन्त्रा न पुंसेत्यवधार्यते ।
 नायं निषेधो नाशीणां वेदपाठस्य मे मते ॥ १२ ॥

The Antiquity of the *Bhagavadgītā*. By S. V. VENKATESHWAR.

A review of the date of the *Gītā* as compared with the *Kauṭiliya* and the Buddhist and Jain texts, and as classified into Political, Sociological, Cosmological, Philosophical, Religious and Literary, assigning the *Gītā* to the pre-Mauryan period.

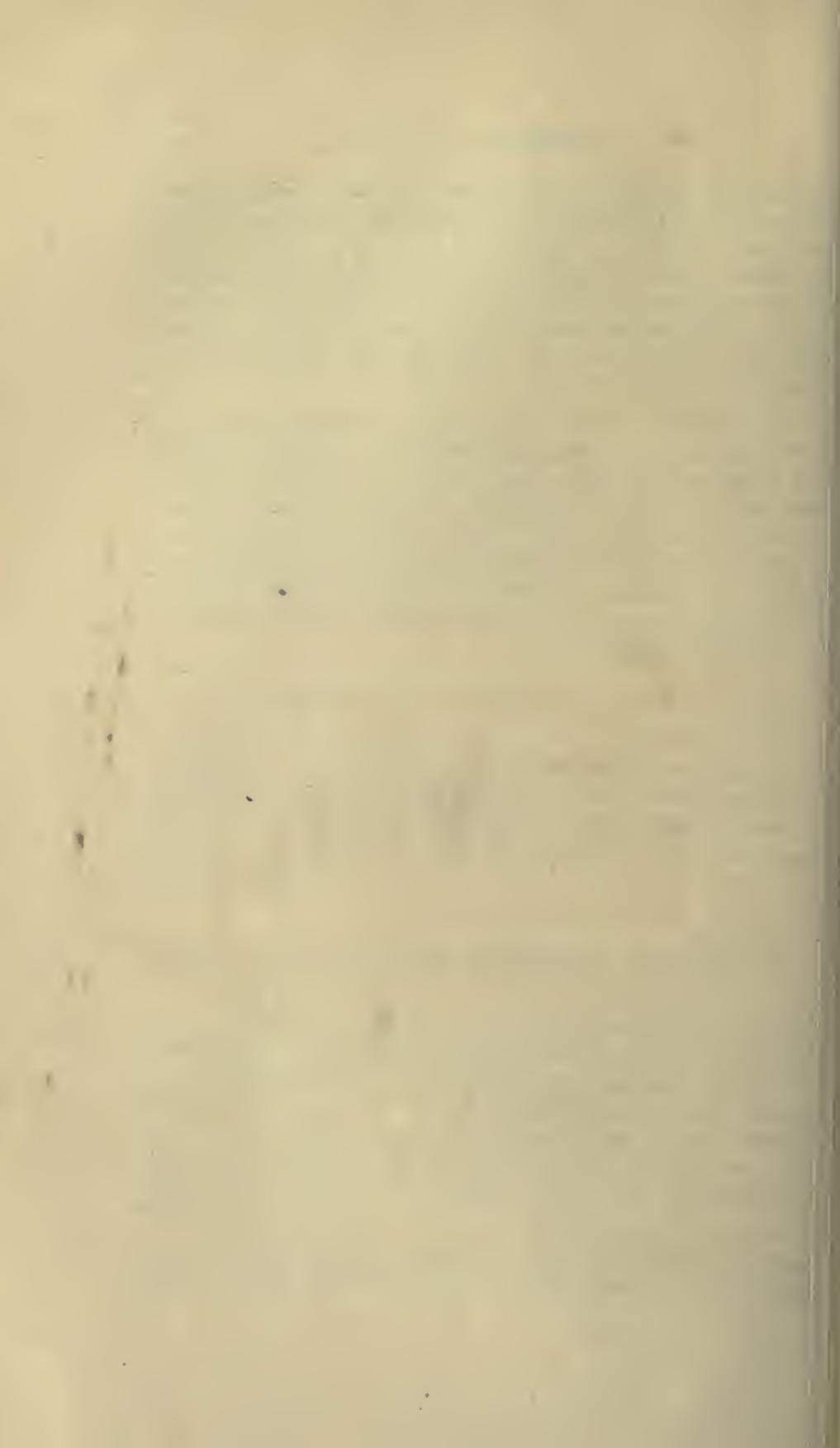
Logic of Śaṅkarācārya and Aristotle. By R. ZIMMERMANN.

1 Definition Of Logic with both philosophers, Aristotle and Śaṅkarācārya. Logic is the science of correct thinking. It is a distinct discipline of philosophy in Aristotle, in Śaṅkarācārya Logic is embodied and supposed in the whole system. The reason for the difference lies in the different lines along which philosophical development went in ancient India and Greece. In Aristotle, Logic has universal, in Śaṅkara limited force.

2 The system of Logic in the two philosophies. Aristotle's logical writings, his division of Beings, the relation

between body and mind, the sources of concept and thought are described. In Aristotle Logic is formal Logic, epistemology, methodology; in Śaṅkara it is mainly epistemology and methodology. The views on knowledge and its sources are with Śaṅkara and Aristotle the same only to a certain extent. The main difference lies in the universality of the principle of contradiction in Aristotle which is not without exception in Śaṅkarācārya.

3 The relation of Logic to other philosophical doctrines. Aristotle's system is essentially Realism; hence Logic, though only a propædeutic discipline, is scientific and governing all the other philosophical doctrines. The Śaṅkaramata is substantially a teaching of Mokṣa. This Mokṣa is brought about by knowledge, a logical principle; but where knowledge and Logic in the ordinary sense clash with his own final doctrines, Śaṅkarācārya discards the "lower" by an appeal to the "higher" knowledge.



IX.—Archaeology.

Ancient Indian Architecture. *By M.A. ANANTHALWAK.*

- 1 The ancient Science of Architecture.
- 2 The 'Śāstras' and 'Kalās' of India.
- 3 The Sanskrit Works on Architecture.
- 4 The great antiquity of the Śilpa Śāstras.
- 5 Need for a critical study of the Śāstras.
- 6 Difficulties of the task.
- 7 Th artisan classes.
- 8 The danger of a superficial study of the Śāstras.
- 9 Vastness of the subject.
- 10 General purpose of the discourse.
 - 11 Testimony of eminent Western scholars on the greatness of India and of her Architecture.
 - (a) Professor Carpenter
 - (b) Max Müller
 - (c) Toda
 - (d) Banister Fletcher
 - (e) Fergusson
 - (f) Harrington.
 - 12 Service of eminent Indian scholars in the direction of Positive Sciences.
 - 13 Lack of knowledge of and sympathetic insight into the Indian ideals in the Western authors, their wrong and misleading starting points, their consequent misinterpretation of her Architecture.
 - 14 Discussion of the question of the 'descending bathos' in the design of Hindu temples, wrongly condemned by some Western writers.
 - 15 Architecture expressive of national life and character.
 - 16 Ancient cult and religion of the country and the history of its evolution from the genesis to be studied for a proper appreciation of her Architecture.
 - 17 Natural conditions of the country shape the artistic impulse
 - 18 Need for tracing the evolution of Indian Architecture from its earliest origins and stages.

- 19 Modern researches, revealing to us the great antiquity of the ancient civilizations.
- 20 The region of 'Jambu-dwipa' and 'Bharata-khanda'.
- 21 The trans-Indian origin of the Aryan race.
- 22 The Sumerians, the earliest ancestors of the Aryan race.
- 23 Their divergence into two cults, the 'Classic' or the 'Sumeru' and the 'Reformed' or the 'Semitic'. The countries of the two cults.
- 24 Similarity of cult obtaining in Babylonia, Persia and India.
- 25 The immigration of the Aryans into South-India—the Dravido-Aryans—their classic cult and Architecture.
- 26 The Aryan immigration into North India, the Semitic influence, the later Buddhistic cult and Architecture.
- 27 Architecture, the outward index of the cult of the land. India's architectural glory, the several styles obtaining in India.
- 28 The features of the Buddhist style, the early Christian and the later Gothic styles.
- 29 Plea for the revivification of ancient Indian sciences and for the uplift of national ideals.

Sanskrit MSS., their Search and Preservation. By
ANANTHA KRISHNA SHASTRI.

Gives a short summary of the history of MSS.

Strongly recommends collection of MSS. at a Central place.

Degeneration of the objects of life from intellectual to material gain resulting in carelessness about MSS. preservation and the consequent loss.

Regeneration by creating an interest in MSS. collection by having a general MSS. survey of the whole of India.

Preparation of cumulative lists of MSS. from time to time necessary.

Suggests steps for the preservation of MSS. with the custodians themselves.

Strongly recommends formation of "The All-India Association for the Search of old MSS." with branches throughout India.

Mentions differences of scripts in the north and the south, also similar differences in the subjects treated.

Advocates editing and printing MSS. under the supervision of recognised scholars.

Advocates even Government intervention for preservation of MSS. on the ground of their being more or less national property rather than individual one.

Mentions the qualifications necessary for the worker in the cause of MSS. search.

The Rock-cut Temples in Southern India. *By J. DUBREUIL.*

In this paper it is pointed out that cave-temples, are numerous in the Tamil country being found in 64 villages.

The rock-cut temples constitute an isolated group well characterised by their sculptures and inscriptions.

Many of them are found in the Pāṇḍya country (Madura, Rāmnad and Tinnevelly districts); but the mode of cutting the rocks has been introduced in the Tamil land by a King of the Pallava dynasty named Mahendravarman I.

The early Kalacūris and the Alphabet of their Copper-plate grants. *By Y. R. GUPTE.*

The names Kalacūri, Kalaccūri, Kalatsūri, Kāṭacūri and Kaṭacūri are identical. Dr. Fleet's remark that Buddharāja, son of Śāṅkaragāṇa was probably an early king of the Kalacūri dynasty. Sāṅkheda grant of Śāntilla. What it proves. Abhōṇa grant of Śāṅkaragāṇa edited by Prof. K. B. Pathak. Its date. Places mentioned in it. The Aihole inscription. What it indicates. The Nerur grant of Maṅgaleśa. It implies that Buddharāja was strong in

cavalry and had considerable troops of elephants. The Vadner grant of Buddharāja discovered by the author and edited by him. Places mentioned in it. The date of the record. The Sarasvāṇi grant edited by Dr. Kielhorn. Its date and places noted in it. The dominions ruled over by the early Kalacūris. Their capital. Clue as to where they reigned. Kṛṣṇarāja, the first known member of the dynasty. Śaṅkaragāṇa's power. The extent of his territory. His feudatory. Buddharāja was an emperor. His addresses, his commands to all kings and tributary princes. Maṅgaleśa did not crush his power. The fabric of the copperplates of the early Kalacūris. Their era. It was employed by other kings viz., Traikūṭakas and Ucchakalpas. The coinage of the early Kalacūris. Devalāna coins. Their attribution by Drs. Bhau Daji and Fleet. Prof. Rapson's views. Author's reasoning and views. What Rai Bahadur V. Venkayya, late Government Epigraphist for India thought of the author's assignment. Was the coinage stopped by Śaṅkaragāṇa and Buddharāja? The early Kalacūris borrowed Gupta epithets. It is not improbable that before attaining sovereignty they were subordinate to the Guptas. The Kalacūri alphabet also has the Gupta characteristics. Form of their copperplates. Their alphabet is of the western variety of the southern one. The most important southern characteristics. The accompanying plate of the alphabets has been prepared by using the cuttings from the plates that appeared in the *Epigraphia Indica* with the permission of the Director General of Archæology in India and the Government Epigraphist for India. Peculiarities of single letters in the grants. Slight differences observable in the alphabet of the three grants, one of Śaṅkaragāṇa and two of Buddharāja. Buddharāja's records have more of the southern characteristics than that of Śaṅkaragāṇa's. Local element. If we want a term for the sake of convenience, we may call the alphabet dealt with as the Kalacūri alphabet.

The Cave and Brāhmaṇi Inscriptions of Southern India.

By H. KRISHNASHASTRI.

1 The paper attempts to bring to the notice of scholars

the earliest writings found so far in the caverns of the Madura and Tinnevelly districts of the Madras Presidency. They are about twenty in number and are engraved in Brāhma characters of the early Áśokan type. Orthographical affinities appear to connect them with Ceylon cave characters and the Bhāttiprolu (Guntur District) casket script.

2 These epigraphical monuments of a pre-Christian era have not been interpreted. Their language is such as to suggest a mixture of Prakrit and Dravidian elements. The renderings are purely tentative and suggestions made may not command final acceptance from scholars. The modest attempt of this paper is only the initial step in the long and interesting course of profitable research that these ancient records are bound to evoke in the world of scholars.

The Jain Manuscript Bhandars at Patan—A final Word on their Search. By J. S. KUDALKAR.

Anhilwada Patan, ever since its foundation in A. D. 745-46, has been the true centre of Jainism in Gujarat and under royal patronage, the Jain preceptors went on writing Jain literature till the 16th century. All this literary treasure miraculously escaped destruction at the hands of the Mahomedan conquerors of Gujarat and has come down to us as "a great store of documents of venerable antiquity" of which any European University Library could be proud. Besides the three superficial inspections made of these MSS. Bhandars by the Bombay Government, H. H. the Maharaja Gaekwad, in whose territories these Manuscript libraries are located, had these libraries thoroughly inspected on two occasions. This paper is an account of these searches of inspection.

It is said that King Kumārapāla had established twenty-one large Bhandars of Manuscripts, and Vastupāla, minister of King Viradhavala, established three more large Bhandars at great costs. But unfortunately none of these is in existence to-day, having been probably scattered through religious persecutions.

Col. Tod, of *Rajasthan* fame, was the first to bring to notice the great manuscript-collection at Patan in 1832, when there existed 40 boxes and a catalogue. In about 1850 A. K. Forbes, the author of the *Rasamala*, got from this collection, which then numbered about 500 works, a copy of Hemācārya's *Dvyāśraya*. In 1873 and 1875 Dr. Bühler, sent by the Bombay Government, attempted to see the Patan Bhandars and got partial access to five collections, which in all contained about 3000 manuscripts. Encouraged by Dr. Bühler's report, the Bombay Government sent in 1883 Dr. (now Sir) R. G. Bhandarkar. The latter, during a week's stay, saw 4 out of 11 Bhandars cursorily, compared their lists with their contents and inspected carefully only a few. These searches induced the Baroda Government to send in 1892 Mr. M. N. Dwivedi to make a detailed search with the double object of preparing a catalogue of the important MSS. and of publishing translations into vernaculars of a few most important among them. Mr. Dwivedi examined about ten thousand MSS.; prepared a list of 2619 important ones and recommended 374 for translation. Mr. Dwivedi was followed in 1893 by Dr. Peterson, with the main object of seeing the famous Hemācārya's Bhandar, but, like his predecessors, he too failed. He, however, discovered new boxes containing many MSS. not seen by Dr. Bhandarkar and got extracts made of about 200.

The Jain community by this time realised the importance of these searches and prepared a list of all important Jain Bhandars in India, including those at Patan, and a Jain millionaire promised to give a building of Rs. 41,000 for keeping the Patan Bhandars together.

After the Sanskrit Branch of the Baroda Central Library was organised in 1912, a search of important MSS. all over India was undertaken by the Library and this led the Baroda Government to institute a second and a final detailed search of the Patan MSS. collections. The late Mr. C. D. Dalal M. A., the then Sanskrit Librarian, who was a Jain by birth and a Jain scholar, was deputed for this work. Mr. Dalal stayed in Patan for 3 months, worked 14 hours a day and examined carefully all the 13 Bhandars, which exist there at

present and which contain more than 12,000 paper MSS. and 658 palm-leaf manuscripts. Mr. Dalal prepared a detailed catalogue *ratsonné* of all the 658 palm leaf MSS. and of an equal number of very important paper MSS. These will be published in the "Gaekwad's Oriental Series" started by the Baroda Central Library in 1916.

This final search has brought to light some new rare works, of which no other copies exist elsewhere, or which were known to exist upto now only through their Chinese or Tibetan translations, and has also revealed a rich literature in Prakrit, Apabhraṃśa, and Gujarātī languages, which would throw a new light on the philology and history of these languages. There are at least more than 300 manuscripts in these collections, which, by their importance and antiquity, would be the object of jealousy among scholars of high repute either for possessing or editing the same.

Note on some Valabhi Coins. By G. P. TAYLOR.

The coin-legend, supplied to scholars during the sessions, to be printed later (has now for the first time been deciphered on some Valabhi copper) coins, that were struck probably in the 8th century of the Christian era. The inscription is written in Brāhmī characters, but of a debased type. Can any member of the Oriental Conference read it, or shed any light upon it?

X.—Ancient History.

The basic Blunder in the Reconstruction of Indian Chronology by Orientalists : or The Greek Synchronisms revised. By M. K. ACHARYA.

1 *Introductory*:—The great and good work done by western orientalists and their Indian followers since the time of Sir William Jones—the difficulties of earlier orientalists. European public opinion against assigning any great antiquity to India beyond that of Greece. Hopeless exaggeration, to the European mind, of Indian traditions. The Purānas thus totally ignored by earlier orientalists. Lack of indigenous historic materials assumed by them and explained away by reference to the supposed philosophic indifference of the Hindus to mundane affairs. The attempts made “to reduce to proper limits” the Puranic accounts. The work however marred by serious limitations of the investigators, by complexity of subject matter, and by defective methods of investigation arising from racial prejudices and prepossessions, superficial knowledge, undue disregard of tradition recorded in “native literature,” reckless distortion of original texts, and overweening selfconfidence. The most typical instance furnished by the false synchronism of Alexander the Great and Candragupta Maurya which has been called the “Sheet Anchor of Indian Chronology.”

2 *Origin and application of the hypothesis*:—Sir William Jones vaguely started the theory in 1793. Colonel Wilford and Prof. Lassen put it on firmer basis. Prof. Max Müller's staunch support, plausibility of the theory. The familiarity of the Europeans with Greek and Roman accounts of India. Sandrocottos of the Greeks undeniably contemporaneous with Alexander the Great and Seleukos Nikator. Identification of Sandrocottos with Candragupta. Candragupta assumed to be the Maurya, who was the only Candragupta known to the earlier orientalists. The theory welcomed as furnishing one certain starting point in investigating a huge field of uncertainties. The hypothesis by sheer repeti-

tion now passed off as a proved fact "no longer open to doubt". Reconstruction of Indian chronology by counting backwards and forwards and by applying averages and approximations, all starting from the "fixed point" of 322 B. C., to, e. g. the Śaisunāga and Nanda pre-Mauryan dynasties, and the Śunga, Kanva, Āndhra and Gupta post-Mauryan dynasties.

*3 Point in favour of the hypothesis :—*Sandrocottos undeniably contemporaneous with Alexander and Seleukos Nikator, as Megasthenes was the latter's ambassador at the court of Sandrocottos described as ruler of the Prasii or kingdom east of the Indus, with capital at Palibothra identical with Pāṭaliputra. His predecessor he overthrew was Xandramus or Andramus or Aggraman, reported to be of low origin and unpopular with his people. These details would apply to Candragupta Maurya who overthrew the Nandas, the first of whom Mahāpadma Nanda was of low origin, being the son of a Śūdra woman. This first or major Greek synchronism supported by the second or minor Greek synchronism, afterwards discovered, of Aśoka, grandson of Candragupta Maurya and Antiochus Teos, grandson of Seleukos Nikator as recorded in the edicts of king Priyadarśin, who in Buddhist record is identical with Aśoka Maurya. The theory as assumed by Vincent Smith gives the most satisfactory basis for fixing the date of Buddha also (as lying between 570 and 480 B. C.).

*4 Arguments against the hypothesis :—*Reexamination of the details supplied by the Greeks. Xandramus or Andramus cannot be identical with Nanda, if Nanda were the reigning king of the Prasii at the time of Alexander's invasion. Xandramus only a Greek corruption of Candramus or King Candra. Sandrocottos or Sandrocyptus who visited Alexander during the reign of Xandramus and who later overthrew Xandramus must be some one other than Candra or Candragupta. The impossibility of making all the details given of Xandramus and Sandrocottos refer to one and the same person. The Greek Sandrocottos a great emperor who owed his elevation entirely to his own prodigious powers. The Candragupta Maurya both of the Hindus and the Buddhists a mere puppet in the hands of the wily Cāṇakya, who elevated Candragupta to the throne solely

to revenge himself on the Nandas. The consensus of authority of the Purāṇas, of *Kathāsaritsāgara* and *Mudrārākṣasa*, and of the *Dipavīmaṇa* and *Mahāvīmaṇa* on the point. The dates assigned to Buddha by orientalists quite conventional. The comparatively meagre value of the second Greek synchronism, as grandsons of two contemporaries must necessarily be contemporaries also. The assumption involved that Priyadarśin of the Edicts is identical with Aśokavardhana. This identification entirely based on Buddhist records, which however are rejected by all later orientalists as being historically untrustworthy.

4 *The new or suggested hypothesis* : The contemporary references of the Greeks would fit in more aptly if applied to Candragupta and Samudragupta of the early Gupta dynasty. Candragupta and his father Ghaṭotkaca both Āndhrabṛhyas, being only officers in the army of the Āndhra kings. Unpopularity of Candragupta who overthrew the Āndhras. His prodigious powers. The dates of the reigns of Candragupta and Samudragupta according to the Purāṇas, untampered, are B. C. 328 to 321 and 321 to 270—Alexander's invasion 324—Megasthenes ambassador 302. Samudragupta a great conqueror, called by Vincent Smith "the Indian Napoleon," bore also the title of Aśokāditya or Mahāśoka. His conquests recorded by Harisena and inscribed on Priyadarśin's pillar at Allahabad. Who was Priyadarśin the great Buddhist Emperor? Three kings called Aśoka :—Dharmāśoka of Kashmir, Aśokavardhana Maurya and Aśokāditya Gupta—all three in all probability Buddhists. Samudragupta Aśokāditya's relations with the kings of Ceylon and Assyria. Vasubandhu the Great Buddhist teacher and writer patronised by Candragupta and Samudragupta. Internal evidence from the Purāṇas most of which make the scantiest references to the Gupta emperors but put the Āndhrabṛhyas, Ābhiras and Hūṇas all together. The absence of any reference to the edicts of Aśoka Maurya by Chinese pilgrims esp. Hiuen Tsang. The confusion in the Ceylonese Buddhist records between the three Aśokas and the transference of the deeds of all three to one, Aśoka Maurya; Candragupta and Samudragupta however not known to earlier orientalists.

5 Comparative merits of the two hypotheses : The earlier theory placing Candragupta Maurya in 320 B. C. originated by orientalists whose knowledge was very imperfect and superficial, and maintained by later orientalists only by pulling down and upsetting all Hindu and Buddhist records and traditions. The earlier orientalists lived in times when European conception of the ancient history of no nation other than the Jews extended beyond B. C. 500 or 600. Since then the discovery of the ancient histories of Egypt, Babylon, Persia, and China have carried the world's ascertainable history far back of B. C. 2000 to 3000. The overwhelming evidence in favour of holding India to be no less older than Egypt and China. Indian chronology as reconstructed by Western orientalists on the basis of the synchronism of Alexander the Great and Candragupta Maurya entirely conventional and opposed to all Hindu and Buddhist records. The interpretation of archeological remains adduced in support, is no less conventional, and is vitiated by a very imperfect understanding of Indian Eras used in inscriptions, whether monumental or numismatic. The subject dealt with in great detail by the late T. B. Narayana Sastri B. A., LL. B., of Madras in his "Mistaken Greek Synchronism" originally issued as an appendix to his "Age of Śāṅkara". The suggested hypothesis of synchronising Alexander with Candra, the Gupta, would furnish a far more satisfactory basis for calculation. The dates of Buddha, of Mahāvira, of the Mahābhārata War etc., on the new hypothesis, will be in consonance both with old Hindu and Buddhist records and with later researches correctly interpreted.

6 Conclusion:—Reconstruction of our past history on the new hypothesis will of course create big gaps especially after the Gupta period which cannot be filled up without colossal labour. Our archaeological records will have to be revised and reinterpreted. The difficulties of the task before the Indian orientalists. The opposition likely to come from the "prestige" of Western orientalists. The need to overcome these difficulties in the interests of Truth. Correct principles of investigation and criticism. The office of the Historian.

A Peep into Mediaeval Dekkan. By A. V. VENKATARAMAYYAR.

Administrative, economic, religious, architectural and social Picture of the later Cālukyas in the eleventh and twelfth centuries of the Christian era.

The chief sources of information

(A) *Administrative*

The Mahārāja. The Mahāpradhānas. The Yuvarāja. Military administration. The standing army and feudal levy. Official divisions of the army. Weapons of war. martial law. High chivalry of the times. Lofty standard of international morality. The civil administration. Territorial divisional officials etc. The central Government, chief departments. Sources of revenue, land, customs etc. Customs and revenue officials. Surplus budget. Local administration. The village, twelve village land. Village pañcāyat, stability of the self-governing village constitution.

(B) *Economic*

Soil, climate, products, imports, exports etc. Sea-borne trade. Intervention of money as a medium of exchange. Coins, weights and measures. Household furniture. Mechanical and technical knowledge. Merchant and craft guilds. Town corporations. Relations between the guilds and corporations. Opulence of the trading class. Rate of interest and its significance

(C) *Religious*

Worship of the Puranic Gods. Śiva but not Viṣṇu the Kuladevatā of the Cālukyas. The hold of Jainism and Buddhism. Local deities. Combined religious worship. Perfect religious toleration. Preponderant religious worship. Formularies of religion. Religious grants and endowments.

(D) *Architectural*

Cālukya architecture. Carving sculpture. Range of style.

(E) *Social*

General character of the people. Women, their ornaments, dress etc. Sports and amusements of kings, queens. Upper class women. Tenderness to animals. Belief in astrology. Dolotsavam and hook. Swinging festivals. Educational advance.

The Karnatak and its Place in Indian History. By
V. B. ALUR.

1 *Introduction.*—A student of Indian History will be struck with wonder to see that so few pages are allotted to the history of Southern India and especially that of Karnatak in the recognised histories of India. I want to show that the history of Karnatak also is important; and so deserves more space.

2 *Definition of the word "The Karnatak History."*—The history of the strip of land that is peopled by Kanarese people is not called "Karnatak history" as it ought to be; the word used in the histories is "Mahārāṣṭra." But it is not right to use that word; for the dynasties of Cālukyas, Rāṣṭrakūṭas etc., who ruled over Kanarese country should be properly called Karnatak kings; because their capitals are in Kanarese country, their inscriptions are in the Kanarese country etc. Dr. Bhandarkar, when he wrote the history of the Deccan, was perhaps misled by the word Mahārāṣṭra in the Aihole inscription. It is time we should correct it.

3 Mr. Vincent Smith says in his history that the materials for this history are few, and that the dynasties of this country are mainly of local interest. I want to show that these statements are not accurate.

4 But before proceeding further I must give a very brief sketch of the history of the dynasties who ruled in the Karnatak. Leaving Kadambas, and Gaṅgas who ruled about the beginning of the Christian era, we come to Cālukyas. They ruled in Badami for about 250 years and their kingdom extended almost over the whole of the Southern Peninsula. The Raṣṭrakūṭas ruled in Malkhed for about 250 years. Then again Cālukyas succeeded and ruled vigorously for about 200 years. Then after a short interval the whole country was split up into two. The northern portion was ruled by Yādavas of Devagiri and the southern by Yādavas of Halebidu. Then came Vijayanagar kings who fell in 1565. These are the important periods of Karnatak history.

5 The objection as to want of material is not true. For though the traditions and accounts of foreign travellers

are not many, the materials are not wholly wanting. But as to the evidence of archaeology, monumental, epigraphic and numismatic, there is copious material already discovered. But there is a vast store yet undiscovered. Moreover, not only is this material vast but also varied. We have beautiful temples of all sorts worth studying, and other monuments which throw light on mythology, architecture, religion, history and iconography. In no part of the world are the inscriptions so very numerous; and coins also are frequently found. The exploration of certain villages will reward the enterprise of an explorer. As to evidence of contemporary literature, Karnatak is very rich. There are many Sanskrit works and the whole of Kanarese literature will yield history if properly studied.

6 The objection as to its importance also is not true. The dynasties that ruled over the Karnatak ruled over vast territories and were very advanced. Moreover, in Karnatak we find all the peculiar traits of Hindu civilisation such as caste system, village community etc., in their extreme form, and so one can study them there more systematically. Karnatak in ancient days produced great religious preachers, statesmen, scholars, etc., who occupy a very prominent position in Hindu civilisation. The names of Śāṅkara, Rāmānuja, Madhva, Vidyāranya, Bhāskarācārya, etc., and the names of Kanarese authors such as Ādi-Pampa, Ponna, Ranna, etc., will do honour to any country. All these persons belong to Karnatak. Kings like Pulakesin, Nṛpatun, ga and Vikramāditya, are such as any nation may be proud of. The history of such a land deserves a prominent place in the history of India.

7 *Conclusion*—Hence the warning, given by Mr. Vincent Smith, that the attention of historians should now be turned to the South, should be attended to.

India as known to the Ancient World. By GAURANGA-NATH BANERJI.

The original habitat of the human race was in the East. Arts and sciences were cultivated here from very ancient

times Intercourse between different countries was carried on by means of caravans, particularly by the inhabitants of the coasts of the Arabian Sea. But the land route was beset with many difficulties. So sea-borne trade gradually sprang up. Navigation however made its first efforts in the Mediterranean Sea and Persian Gulf as these Seas lay open the continents of Asia, Europe and Africa. But gradually the Arabian Sea was included in the sphere of Commerce, and subsequently communication by sea with India was established. The question of navigation on the Persian Gulf however is still entirely shrouded in mist. The most ancient inscriptions do not mention anything of such matters. Incidentally we may gather however that the great prosperity of Elam was due to the wealth acquired by trade relations with countries on her eastern frontier. Elam was really the connecting link between the civilized countries of Nearer and Eastern Asia.

Now the principal sources of our knowledge regarding the early Indian trade are derived from the Indian Scriptures on the one hand and from contemporary foreign literature on the other. In the Vedic times, navigation was diligently pursued, though trade only existed in barter. The first trade between India and the West was that carried on the Erythrean sea,—the Arunodadhi of the Pauranic lore. From the history of the Chinese coinage, it is quite certain that an active sea-borne commerce between China and Western Asia sprang about 700 B.C. There is ample evidence that there existed maritime intercourse between India and Babylon in the 7th century B.C. e.g. the Bāveru Jātaka. But the trade was chiefly in the hands of the Dravidians, although the Aryans also had a share in it. The secret of the greatness of Babylon lay in her monopoly of the treasures of the East.

The trade of the ancient Egyptians on the contrary consists in buying goods from their nearest neighbours on one side and selling them to those on the other side of them, and though trading wealth of Egypt had mainly arisen from carrying the merchandise of India and Arabia, the Egyptians seem to have gained no knowledge of the countries from

which these goods come. India only seems to have been known to the early Greeks as a country that by sea was to be reached by way of the Euphrates and the Persian Gulf. It was in the reign of Energetes 200 B.C. that an Indian toiled straight from India to Egypt and following his example, Endoxus of Cyzicus made a voyage of discovery to India. But the art of navigation was so far unknown that but little use was made of this voyage and the trade with India under the Ptolemies was still carried on camels' backs. It was only through the Romans that Egypt obtained the great maritime traffic to the East. Alexandria under the Romans became the great entrepôt of the tradingworld—it was a spot where Europe met Asia and each wondered at the strangeness of the other. It is in the time of Claudius (A. D. 41) that the route through Egypt to India became really known to the Europeans. The historian Pliny (79 A.D.) has left us a contemporary account in his "Natural History". There is also the "*Periplus of the Erythrean Sea*," giving us a valuable geographical knowledge of the several sea-passes and towns near the coast etc. But that the Romans did not go to India, is a fact of vast historical importance. The Western World was cut off from all contact for 1000 years with the world of the East.

The Date of Cakradhara the Mānabhāva. By G. K. CHANDORKAR.

Argument:—The time of Cakradhara the Mānabhāva is proposed to be ascertained from the Life of Cakradhara himself in two parts, *Lilā Samvāda* and *Lilā Caritra* a work written by a Mānabhāva in symbols and from *Phaltan Māhātmya* also another work of a Mānabhāva.

1 The story of Cakradhara's (alias Cāngadeva's) birth as set forth in the *Phaltan Māhātmya*, states that the father of Cakradhara had made a vow to the Samādhi of Cāngadeva 'near the Purandhar hill'. This Samādhi 'near the Purandhar hill' is the Samādhi of Cāngā Vateśwara the famous disciple of Śri Dnyāneśwara.

Chāngā Vāṭeśwara went into Samādhi in the Śaka year 1219.

2 Muktābāi the only sister of Śrī Dnyāneśwara has been thrice mentioned in the Caritra as a person of the past.

Muktābāi went into Samādhi in the Śaka year 1220 as accepted by Marāṭhi Scholars.

3 The same Caritra mentions Namdev the favourite of Śrī Viṭṭhala.

Namdev is described by Cakradhara himself as a highwayman given to cattle-stealing along with Viṭṭhala a Brahman. Both were once pursued and killed. Viṭṭhala became a God, or was rather turned into God by his sons composing Abhaṅgas on him, wherein he and his wife Rakhumāi were mentioned by the sons.

Namdev went into Samādhi nearly 50 years after Śrī Dnyāneśwara, that is in Śaka year 1268.

4 Marāṭhi scholars are aware that some Abhaṅgas of Śrī Dnyāneśwara appear under an assumed name of 'Bāpa Rakhumā Dēvī Varu Viṭṭhalu'. These are the Abhaṅgas referred to above.

Hence Cakradhara Mānabhāva must have lived long after Śaka 1248.

Since the earliest reference to Mānabhāvas is to be met with in the works of Śrī Eknath (1521 Śaka). Chakradhar must have lived between 1268 and 1521. I allot him to the latter half of the 15th century.

Date of the Coronation of Mahāpadma. By HARIT KRI-SHNADEB.

The Matsya Vāyu and Brahmāṇḍa Purāṇas, towards the close of their dynastic account of the Kali Age, assert that the account has been carried down to the 836th year 'after Mahāpadma'. As the preceding verse counts back from the coronation of Mahāpadma, the expression 'after'

Mahāpadma' should be understood to mean 'after Mahāpadma's coronation' which is obviously taken here as the pivot of reckoning.

To determine a precise date for this event is the object of this paper. The approximate date has long been known. It must fall about the 4th or 5th century B. C., since the Greek notices conclusively prove that the Maurya dynasty, which supplanted Mahāpadma's dynasty after the latter had ruled for 40 or 100 years, had already been established before 300 B. C., and Aśoka Maurya speaks, in an inscription, of Magas who ruled in Cyrene c. 300 B. C.—c. 250 B. C. The 836th year after Mahāpadma, the last definite date given in the Purāṇas, thus falls about the 5th century A. D.

It is not likely that Indian historians of such a late period failed to recognise the necessity for the use of an era in order to make their dynastic account chronologically intelligible. Several eras were in existence at that period, but most of them were regnal reckonings of particular monarchs, and the adoption of any one of these reckonings may have been thought to betray a political bias not worthy of an impartial historian. But there was one era not open to this objection, namely the Laukika or Saptarṣi era. This era has been used by Kalhaṇa in his *Rājataranginī* in preference to the Śaka era in recording the dates of Kashmir kings. It would appear that this custom was already quite archaic in Kalhaṇa's time, and may well have existed at the time the earliest Purāṇas received their present form. The Laukika era was eminently suitable for employment in Puranic chronology; for it is 'laukika,' i.e. 'popular,' and the Purāṇas are popular histories. Another name for this era is 'Śāstra samvats'; and what Śāstras, if not the Purāṇas, could imperatively require the use of an era? The Puranic account actually gives an exposition of the Saptarṣi reckoning just after mentioning the period between Mahāpadma's coronation and the last definite date to which the dynastic account has been brought down. It is difficult to avoid concluding that the Saptarṣi or Laukika reckoning has been availed of here; in other words, the 836th year after Mahāpadma's

coronation is nothing but the last year of a Saptarsi century.

This century must correspond to the years 324-424 A. D.; for no other century preserves the Graeco-Indian synchronisms alluded to above. Mahāpadma's coronation thus falls about the year 413 B. C. (413 B. C.-424 A. D.=836 years).

The same conclusion follows from other and independent considerations. The dynastic account is claimed to have confined itself to the enumeration of kings of the Kali Age. The 836th year after Mahāpadma must, therefore, have been considered to mark the end of the Kali Age.

Now, the Purāṇas also assert that the beginning of the Tretā Age is to be identified with the starting-point of history. True, they assume several manvantaras, each manvantara consisting of several caturyugas, and each caturyuga consisting of four yugas calculated according to the *divya* reckoning which conceives of a single year as containing 360 human or ordinary years. But the manvantaras before the Vaivasvata period have no relation to history proper, as proved by the occurrence, in *Matsya*, of the word *bhuvi* in connexion only with the sons of Vaivasvata Manu, as also by the explicit statement in *Vāyu* that corn-cultivation, preservation of cattle etc., first became possible in the Vaivasvata period. Further, the *divya* mode of reckoning is conventional, as attested by the use of such expressions as *Sañjita*, *āhurmanīśinah*, and by the existence of an account of the yuga periods without reference to the *divya* reckoning in ch. 32 of *Vāyu*. The first 27 caturyugas of the Vaivasvata period are likewise conventional, since the Purāṇas ascribe a cyclic character to the historical events they enumerate. The Tretāyuga, therefore, which is taken in the Purāṇas to mark the beginning of orthodox history, is the Tretāyuga of the 28th caturyuga of the Vaivasvata manvantara; and the *divya* calculation need not be considered in judging the historical period. The period between the starting-point of history and the end of the Kali Age is thus one of (3600 + 2400 + 1200 or) 7200 years.

In the days of Megasthenes, the Hindus reckoned the starting-point of their history to have been 6451 years and three months before Alexander, that is, about 6777 B. C. As this reckoning was based upon the reign-periods of kings, and was associated with legends concerning Spatembas (Svāyambhuva) and Boudyas (Buddha), the standpoint must have been that of the Purānas. The date 6777 B. C. should consequently be identified with the beginning of the Tretā-yuga of the Purānas, with the result that the end of the Kaliyuga falls in 424 A. D. (6777 B. C.-424 A. D. 7200 years), and the coronation of Mahāpadma is assigned to 413 B. C., being 836 years prior to the end of Kali.

According to this view of the chronology, the yuga-periods are:—

Tretā—6777 B. C.—3177 B. C.

Dvāpara—3177 B. C.—777 B. C.

Kali—777 B. C.—424 A. D.

We can put this chronology to some rough tests.

The Purānas say that the Vedas were divided into four parts in the Dvāparayuga, i. e. between 3177 B.C. and 777 B.C. This result is in sufficient agreement with the considered views of Western scholars on the age of the Vedas. Again, the Purānas ascribe to the Dvāparayuga the division of Puranic literature into 18 parts. This view tallies with the inference, based upon the Puranic use of the present tense in connexion with three contemporary kings, who were removed from Yudhisthira by about four generations, that the age of compilation of the original Purānas lies in the 13th or 14th century B. C. But it seems to conflict with the view, also noted in the Purānas, that the Kali Age began with the death of Kṛṣṇa. The fact is that both views are combined in the Purānas as at present constituted; for while proposing to give a dynastic account of the Kaliyuga only, which consists of no more than 1200 years, the Purānas actually treat of a period extending over more than 18 centuries. This composite standpoint, resulting in an overlapping of about 700 years as between the Dvāpara and Kali periods, is admitted in so many words:—*yugapat sumavetau dvau dvividhā vaktum na śakyate.*

Mahāpadma's coronation-date, as determined here, brings him into chronological connexion with Darius II of Persia (424 B. C.-404 B. C.) who was, like Mahāpadma, an illegitimate scion of the older ruling house, and had usurped the throne by killing the legitimate heir. Mahāpadma may have been encouraged by the Persian example to seize the throne not lawfully belonging to him. The conquests of Darius I had brought the Achaemenian Empire into close contact with India proper, and may have necessitated the formation of a unified Middle Indian Empire under Udayana,—the Empire which Mahāpadma was later to constitute into a kingdom under his sole sway by uprooting the subordinate kings. He was the first Śūdra monarch after the Bhārata War, and his coronation-date is a very important land-mark in the political history of India.

Identification of the Kings of Āryāvarta defeated by Samudragupta. *By K. N. DIKSHIT.*

Important points treated in the paper :—

1 Balavarman, the last of the nine princes of Āryāvarta defeated by Samudragupta (vide his Allahabad Pillar Inscription) is most probably identical with Balavarman, the ancestor of Bhāskaravarman of Assam.

2 Rudradeva the first of the 9 kings mentioned in the same inscription is probably to be identified with Rudrasena I of the Vākātaka dynasty, who was a contemporary of Samudragupta.

3 These identifications point to an order in which the names of the nine kings were mentioned, beginning from the South, then to the West, then to the North and finally to the Eastern frontier of the original Gupta kingdom. The kings mentioned may thus be tentatively localized in particular regions.

The Date of Haribhadrasūri. *By MUNI JINAVIJAYAJI.*

More than one Jain writer bears the name Haribhadrasūri, but the subject of this paper is the earliest and the most

famous of them: the author of *Āvaśyakasūtravṛtti*, *Yogabindu*, *Śūstravārtasamuccaya*, and scores of other works small and large. Haribhadra supplies scanty details about himself in the colophon to the *Āvaśyakasūtravṛtti*, but his date is still disputed. The question was opened up by Peterson, who was followed by Klatt, Leumann, Ballini, Mironow, and Jacobi. The last mentioned scholar doubts the validity of an anonymous Prakrt gāthā, which has been the basis for all other chronological statements about Haribhadra and which records the death of the great ācārya as having taken place in 529 A. D., on the strength of (i) a statement in the *Upamitibhavaprapāñcākathā* which was finished in A. D. 906 and the author of which, Siddharsi, calls Haribhadra his preceptor; and (ii) certain identifications of expression between Haribhadra and Dharmakīrti. Now as to (ii) Jacobi could have made a much stronger case in as much as Haribhadra actually mentions not only Dharmakīrti but even Bhartṛhari the author of the *Vākyapadīya* (cir. 650 A. D.) and Kumārila (first half of the 8th century) as also a number of other Jain and Buddhistic writers. But we cannot accept the argument (i) because, if we follow the words of Siddharsi carefully it becomes evident that Siddharsi does not wish us to regard Haribhadra as his immediate teacher (ch. *Anāgatam parijūā-yu*). Thus although the anonymous Prakrt gāthā has to be rejected as a chronological evidence, we cannot take Haribhadra at once from the 6th to the 10th century, but have to place him rather in the 8th century after Christ. One evidence of a compelling kind for this is the mention of Haribhadra by Udyotanasūri who wrote his *Kuvalayamālā* in Śaka 699 or 777 A. D. Further collateral evidence enables us to place Haribhadra between 705 and 775 A. D. He lived therefore in that same century which produced great writers like Kumārila, Prabhākara, Saṅkara and Sureśvara; Bhavabhūti and Vākpati; Śāntarakṣita and Kamalaśila; Akalaṅka, Māṇikyanandi, Vidyānanda, and Prabhācandra.

The four Appendixes at the end of the paper discuss the question of the relation between Haribhadra and Śāntarakṣita; the necessity of distinguishing between a Vṛddha-Dharmotara (whom Haribhadra quotes) and a later writer of the same

name; the necessity of a similar distinction between two writers of the name Mallavādin; and the indirect bearing of the date of Haribhadra upon the date of Śaṅkarācārya whom Haribhadra does not quote and who therefore cannot be placed a hundred years earlier than the date accepted for him by Professor K. B. Pathak and others. If Śaṅkara had lived 100 years before Haribhadra, the absence of all reference to him or to his works by Haribhadra remains unexplained.

Rāvaṇa's Lankā discovered. By Sirdar M. V. KIBE.

The identity of the Ayodhyā and Citrakūṭa mentioned in Vālmiki's *Rāmāyana* with the modern sites or places bearing those names is not disputed. There is, however, no certainty as regards the places visited by Rāma and his party during his exile after his visit to Citrakūṭa. It appears that he spent nearly ten years in the Dandakā forest and then resided at a particular spot in it for about two years when his wife, Sītā, was abducted by Rāvaṇa. In search of her, Rāma reached Kiśkindhā. This place could be fixed with certainty on three grounds. The first is that from here Sugriva, while sending expeditions in four directions, enumerated the countries in each direction. This centre appears to be on the Northern slope of the extreme East of the Vindhya range. Then the distance between Citrakūṭa and Kiśkindhā is indicated in *yojanas*. In mileage it comes to about 92 miles. This again leads to the same spot. The third ground is that the search party which went to the South immediately entered the Vindhya after leaving Kiśkindhā. These three grounds lead to the location of Kiśkindhā in the present Rewa State. Local tradition also points to the same place.

The next place then to be searched is Rāvaṇa's Lankā. The *Rāmāyana* is quite clear that the search party which entered the Vindhya went to the South and as soon as it left its valley came across the Sea, on the other shore of which Lankā was visible, perched on the peak of a mountain. There is no sea which washes the Southern side of the Vindhya. It is not unlikely that the poet might have magnified an expense of water into a sea. If this explanation is accepted, a

mysterious peak which is visible from the neighbourhood of the Amarkantak, the source of the Narbudda, and which is surrounded by marshy land may be identified with Laṅkā.

Local tradition connects the country with Rāvaṇa and this part of the Vindhya which is called the Kaimur range contains traces of the habitation of pre-historic men.

The early History of the Gurjaras. By R. C. MAJUMDAR.

The object of the present paper is to discuss the history of a Gurjara-Pratihāra ruling family, earlier than and different from the well-known Imperial Pratihāras. The family was founded by a Brāhmaṇa called Haricandra in the middle of the sixth century A. D. and ruled over territories round about Mandor in Rajputana. This is the earliest Gurjara power in India known to History, and the province over which they ruled was known in later times as Gurjarātra. Among others, the following important points regarding the history of this family have been sought to be established in the present paper.

- (1) They were the Gurjaras against whom the kings of Thaneswar, notably Prabhākaravardhana, carried on constant warfare.
- (2) They represent the Gurjara power which came into conflict with the Cālukyas of Badami, notably Pulakeśin II.
- (3) The Sāmanta Dadḍa who founded a feudatory ruling family at Broach was the brother of a king of this dynasty and the Broach Gurjaras were thus subordinate to this family.
- (4) The Gurjara kingdom referred to by the Chinese traveller Yuan-chwang is the province ruled over by this family and the king whose court was visited by the pilgrim was the fifth king of this family called Tāṭa.
- (5) The power and prestige of this family underwent a considerable decline in consequence of an invasion by the Arabs in c. 725 A. D.

- (6) The ultimate downfall of the dynasty was caused by the rise of a rival Pratihāra family which drove away the Mlechha invaders and established the supremacy over the Gurjara confederacy.
- (7) Henceforth the family continued as a subordinate power under the imperial Pratihāras till at least the beginning of the tenth century A. D. but its end is involved in obscurity.

The Ancient Germans. A few points in their Constitution, Religion, Society, etc, common to them and to the Early Indo-Iranians. *By JIVANJI JAMSHEDEJI MODI.*

The last great war, in which many nations of the Indo-Germanic group took part, drew the attention of the whole civilized world to the Germans. According to Gibbon, the ancient Germans have "a stronger and more domestic claim" upon the attention of the Britons. We may add, that they have also some claim upon the attention of the Modern Indo-Iranians—the Hindus and the Parsis. As to the claims of the Britons, Gibbon says that "the most civilized nations of modern Europe issued from the woods of Germany, and in the rude institutions of those barbarians, we may still distinguish the original principles of our present laws and manners". Dr. J. Aikin, a translator of Tacitus, the Historian of the ancient Germans, says: "The government policy and manners of the most civilized parts of the globe were to originate from the woods and deserts of Germany". Mr. Baring Gould, in his book on Germany, says: "Influences have gone forth from her which have deeply affected every one of her neighbours..... The reader of the story of Germany is thus brought face to face with problems of the deepest moment, with which men of deadly earnestness were struggling through the ages, putting forth all the power of their intellect and the force of their vigorous bodies, intensified by the deep-seated religious convictions which they nourished in their hearts. The story of such a people as the Germans could not fail to possess intense interest for any-

one." That story does possess some interest for us, Indo-Iranians, also, but that interest is based on a ground different from that on which the Britons base their interest. The interest of the Britons, lies mostly on the ground that the Germans were looked at as blood-relations, as cousins, and that they (the Britons), to a great extent, built upon the experience of these cousins and looked to them for guidance. The reason of the claims of the ancient German upon our attention is that the ancient Germans were the contemporaries of the ancient Indo-Iranians. So our interest lies more in the line of comparing some of our old religious beliefs, manners and customs with those of the ancient Germans looking at them as our great grand uncles of the past and not in the line of tracing the origin or rise of these from them as is the case with the modern Britons and other European nations, who look at them as their remote ancestors or great grandfathers. Both Ethnography and Philology present this view of the case.

Our authorities for information about the ancient Germans are Caius Julius and Caius Cornelius Tacitus. Tacitus has been held to be wrong, when he said, that the ancient Germans were "indigenous and free from intermixture with foreigners, either as settlers or casual visitors". (a) The burial mounds found in some parts of Germany, (b) the ancient names of some of its rivers and mountains and (c) the division of the people like that of Āryas and Non-Āryas, like that of Iranians and Non-Iranians, into the free and non-free (the serfs, the original natives of the place) among whom intermarriages were prohibited by a law, the relic of which prevented, up to now, a German prince from marrying out of the princely family—all these point to an early occupation of the land by some people other than the ancient Germans, and to the conclusion that the ancient Germans came from somewhere else and occupied the country as conquerors.

They are believed to have a Scythian origin and to have come from a country occupied by the Scythians. Several

facts lead us to that conclusion. (a) Their god Tuist was the god Teut or Teutates, the Celto-Scythian king or hero. (b) The story of Manus, the son of this Tuisto, whose three sons gave their names to three great tribes of the ancient Germans reminds us of the Iranian story of the Avesta Thraetana (Faridun) and of his three sons, who gave their names to three Iranian countries. The name Manus reminds us of the Iranian Manush (Manushcheher, Minocher), descendant of Thraetaona.

Then, the Scythians, from whom the ancient Germans took their origin, were, as pointed out by Prof. Gutschmid, "Aryan and nearly akin to the settled Iranians". The account of Herodotus about the Scythians supports this conclusion. They had among them the story of the three sons of Targitans and of their trial, which reminds us of the story of the trials of his three sons by the Thraetaona of the Tuesta.

We find that almost a similar story of three brothers is connected with the God Tuist of the ancient Germans, the God Trita Āptya of the Hindus, and the hero Thraetaona Athwya of the Iranians. Again the story of the mares of the Scythian Hercules, disappearing when the hero was asleep, is the instance of a woman who wanted to marry him, resembles that of the Iranian Hercules, Rustam, and his wife Tehmina.

We trace similarity between the institutions of the ancient Germans and the ancient Indo-Iranians in the following matters.

- 1 Constitution, 2 Religion, 3 Womanhood, (a) Social position (b) Prohibition against Widow-marriage (c) Sutteehip (d) Prohibition of Intermarriages, 4 Computation of time, 5 Miscellaneous matters, such as (a) Calculation of Wealth (b) Deliberation during and after feasts.

1 The Civil Economy of the ancient Germans corresponded, to a certain extent, to that of the Iranians and Indians. The German divisions of houses, *vici*, districts and tribes, corresponded to the Iranian division of houses, (*māna*), *viṣa* (विषा), *Zantu* (जन्तु) and *danghu* or *dakhyu* (दक्षु).

The Townships of the Germans corresponded to the village-communities of India. Their way of conducting communal business resembled the Indian way. Sir H. Maine has compared these two. Their mode of electing the chiefs or the Panchayat was well nigh similar. The common civil Economy of the ancient Germans, Indians and Iranians shows, that local Self-Government was, as it were, 'as old as the hills'. As Prof. Rehatsek has said, "it was the feature of the Persian system of administration to allow the nation under their rule a good deal of self-Government and internal independence. Even the civil governors of Judæa.....were always Jews". There prevailed a reasonable democratic spirit or rule. Kauṭilya's Arthaśāstra shows that there prevailed such a spirit in ancient India. It extended even to the Tamil country. The Germans, the Iranians and Indians had both kinds of government in their extended territories, monarchies as well as republics. The Buddhist Suttakas and the Iranian Vendidad refer to both. The "vox populi" prevailed in the election of kings and chiefs.

2 As to the Religion of the ancient Germans, Cæsar says: "They reckon those alone in the number of gods which are the objects of their perception and by whose attributes, they are visibly benefited, as the Sun, the Moon, and Ocean. The rest they have not heard of". Herein we see the old Indo-Iranian worship, "a worship of the wonderful powers and phenomena of Nature," as said by Dr. Whitney. The statement of Tacitus about the ancient Germans, that they conceive as unworthy the grandeur of celestial beings to confine their deities within walls, or to represent them under a human similitude," seems to be, as it were another version of what Herodotus says of the early Iranians, that it is not their practice to erect stones or temples or altars, but they charge those with folly, who do so". Arrian refers to Megasthenes, as saying a similar thing of the ancient Indians of the pre-Buddhistic times. What Prof. Guttmann says of the Scythian worship, that "in true Iranian religion the gods were adored without images or temples", is true of the Germans also. The German god Wotan, the god of air, who has given his name to a week-day, the Wednesday, is the same as the Vāta, the Iranian Yazata of air.

or wind. A kind of divination was associated with Religion among these three people. Their divination from twigs reminds us of the divination among the Iranians through their *barsam*, referred to in the old testament, which, though now made of metallic rods, was formerly made of twigs, and which seems to have been used for divination. All the three ancient nations had divination from birds, horses and fights of individual champions.

3 (a) The ancient Germans had like their Indo-Iranian brethren a very great esteem for women, who held a high position among them. They married like them at a mature age, and had like them, monogamy as the rule and polygamy as exceptions. Tacitus presents to us as bright a picture of the position of woman, as that presented by the Avesta for the Iranian women, and by the ancient Hindu books for Indian women. It was the husband who brought the gifts or dowry and not the wife. In ancient Iran and India also, the gifts were from the husband. A desire for a large progeny was common among the three nations. The mothers "suckled their own children" and did not "deliver them into the hands of servants and nurses".

(b) They had among them in some states prohibition of Widow-marriages and Suttee-ship, which at one time or another in the history of the ancient Hindus, existed among them. It is a question how old is the prohibition in India. It seems, that (a) either there were different views about widow-marriages at different periods of Indian history, or (b), that the views differed in different parts of the country. It seems, that the prohibition existed when the ancestors of the ancient Germans and the ancient Hindus—their common Aryan forefathers—lived together somewhere. We learn from Kauṭilya's Arthaśāstra, that widow-marriage was permitted in Candragupta's time. Again, we learn from Firdousi, that in later times also, in the times of Chosroes I (Nowshervan A'dil, 6th Century A. D.), it was permitted.

(c) As to Suttee-ship among the ancient Germans, Baring Gould attributes it rather to want of self-respect, but following Tacitus, we must say, that, as at one time in India, it was resorted to by women out of higher feelings for the sacred tie of marriage.

(d) The ancient Germans had, according to Tacitus, no inter-marriages with non-Germans. They had also no inter-marriages with what we may call the aborigines of the country, whom they called, 'non-free, calling themselves who had come from a foreign land, free'. According to Megasthenes and Arrian, there was some prohibition against inter-marriage's between the castes.

4 In their computation of time, the ancient Germans, like their brethren the Indo-Iranians "computed time not by the number of days but of nights".

5 They counted their wealth by their cattle.

They were late risers, ate on separate tables or plates-and indulged in drinking. Like their Iranian brothers, of whose custom Herodotus speaks at some length, they held deliberations on serious matters in the midst of feasts and after drinking, and confirmed those deliberations in sober hours, the next day.

A Chapter from our early Economic Geography. By
RADHAKAMAL MOOKERJI.

There can be no greater test of India's economic progress in the past than the age-long distribution and utilisation of forest, agricultural and mineral products from the Himalayas to the Cape and from Sindh to Assam. It is also significant that the distribution is in some cases fairly the same as it had been 25 centuries ago, being determined by the physio-graphical characteristics of the different forest, pastoral, agricultural or mineral regions and zones in India. The pearls of Ceylon, the corals of the Sea of Barbara, the forest products of the sub-tropical slopes of the Himalayas and of Assam, the shawls and rugs in the wool areas of the dry N. W. and especially Kashmir and Nepal, the cotton in the old cotton areas of Bengal and Paundra, the Ganges valleys or the Coromandal Coast lands, the horses of the dry hills of the N. W. in Sindh and in Afghanistan, the elephants in the Terai and Assam forests, the salt dug from the Sindh region,—these are as well known to-day as they had been in the ages of the

Arthaśāstra, the *Mahābhārata* or the *Periplus*. The names of towns and regions are sometimes easy and sometimes difficult to identify. The careful and accurate topographical descriptions of the *Periplus* give an identical picture of the economic life of the Tamil country and Malabar and its economic products as modern district gazetteers. The economic regions remain the same and consequently their commercial products.

A classification of these as shown in the paper would show India's resources and her geographical unity and economic destiny through all the long centuries in the past.

Some Aspects of the Problem of the Gupta Era. By
K. B. PATHAK.

Alberuni makes four statements :—

- 1 The expired years of the Indian eras were used.
- 2 Gupta was another name of the Valabhi era.
- 3 The difference between corresponding Valabhi and Śaka is expressed by the cube of 6 and the square of 4 (241).
- 4 The initial day of the Valabhi year is Caitra Ś. 1.

These statements are proved by three different and independent methods based on the results of astronomical calculations. In this way Alberuni is completely vindicated against the attacks of his critics of the nineteenth century.

Notes on the early Sea-borne Commerce of Western India.
By H. G. RAWLINSON.

1 Trade between India and the west travelled by three routes viz :—

- (a) Oxus route, to Black Sea and Aegean.
- (b) Persian Gulf route to Mesopotamia and Levant.
- (c) Red Sea route to Egypt and Syria.

2 Four Epochs of Indian trade :—

(a) *Egypto-Semitic period.* Antiquity of Egyptian Mesopotamian culture. Solomon and the Phoenician fleet from Akaba. Rise of Assyria, and of Babylon. Mesopotamian influence on early Indian culture. Ports of Western India : roads, references in the *Jātakas*. Ancient trade indirect through clearing-houses.

(b) *Persian Period.* Conquest of the Panjab by Darius.

(c) *Hellenic Period.* Alexander conquers Punjab. Leaves his kingdoms in the East to the Seleukids and the Ptolemies. The Mauryas, and sea-trade regulations.

(d) *The Roman Period.* Rise of the Andhras and their control of the Konkan ports. Discovery of the Monsoon, A. D. 45. Its effect, centre of gravity changes to Malabar : the trade in spices, pepper and jewels. Roman coins in S. India. The *Periplus* and Pliny and their accounts of Indo-Roman trade. Sack of Rome 410 A. C.

3. Causes of the decline of Indian trade :—

(a) *External.* Collapse of Rome, rise of Mahommedanism.

(b) *Internal* ; Buddhism succeeded by Brahmanism. Buddhism = Trading class of Puritanism.

4 Indian Imports and Exports and their prices :—

(a) Imports—copper, tin, silver, a few drugs.

(b) Exports—jewels, pepper, drugs etc.

Great excess of Exports over Imports. Balance made up in *specie*. Disastrous effect of this on Economic position of the Roman Empire. General conclusions.

Jāngaladeśa and its Capital, Ahicchatrapura. By HAR BILAS SARDA.

Jāngaladeśa was one of the several provinces of Bhārata Varṣa in ancient times.

Its physical characteristics as described in Sanskrit books show that it must have been situated somewhere in

what is now known as Rajputana. Nand Lal Dey's opinion that Jāngala and Kurudeśa were one and the same country and were known as Śrikanṭhadeśa cannot be accepted. Śrikanṭhadeśa was the kingdom of Thaneśvara, and Kuru and Jāngala were two separate countries. The term Kuru-Jāngala shows that Kuru and Jāngala lay adjacent to each other and formed a political or economic unit as Kuru-Pāncāla. A part of Bikaner territory is still called Jāngala and the Bikaner Chiefs are called 'Jangaldhar Patshāh' by bards.

The early Cauhāns ruled over the country round Nago (now in Mārwār) and their kingdom was called Jāngaladeśa or Sapādalakṣa. As their power increased and their dominions extended, the whole of their kingdom came to be called Jāngaladeśa or Sapādalakṣa. Thus when Sambhar and later on, Ajmer became their capitals, Jāngaladeśa included the greater part of the present Bikaner, Jaipur and Jodhpur states, the whole of Ajmer-Marwara and Kishengarh, and the Eastern part of Mewar. Cauhān Kingdom is called Sapādalakṣa in the Visalpur and other inscriptions, and Sanskrit works are quoted to show that the Cauhān Kingdom was sometimes called Jāngaladeśa and sometimes Sapādalakṣa. Jāngaladeśa is the ancient and Sapādalakṣa the modern name of the territories ruled over by the Cauhāns.

The Capital of Jāngaladeśa is not recorded anywhere. In the collection of manuscripts and transcripts of inscriptions, left by Yati Gyanchandra, Guru of Colonel James Todd, there is a paper containing names of 26 countries with their capitals and the capital of Jāngaladeśa is stated therein to be Ahicchatra. This Ahicchatra must have been situated within the Jāngaladeśa or Sapādalakṣa country. Both the Bijolian Rock inscription of A. D. 1170 and the celebrated Epic, *Pr̥thvirāja Vijaya*, name the capital of the Sapādalakṣa country Ahicchatrapura.

It appears from the account given in the *Pr̥thvirāja Vijaya*, of the origin of the salt lake of Sambhar, that the Capital of Samanarāja, the successor of the founder of the Cauhān dynasty, Vāsudeva, was situated about a day's hard ride from Sambhar. This fact, along with the fact that

the pargannah of Nagor (Nāgapura) has always been and is still called Śvālak, the Hindi form of Sapādalakṣa, and that Nagor is a synonym of Ahicchatrapura, (both meaning " the town of the serpent)" shows that Ahicchatra is the ancient name of Nagor or Nāgapura, and that the present town of Nagor was the Capital of Jāngaladeśa or Sapādalakṣa.

Gupta Era. By H. A. SHAH.

The starting point of the Gupta Era is determined with the help of Jinasena. He gives it in terms of Vira years. Valuing the Vira years into Śaka years and thence, in turn, those Śaka years into A. D. years, the Gupta Era is found to begin in about 200 A. D. A corresponding Buddhist year is also obtained by inferences.

The problems connected with Gupta history are then examined and applied to the chronology which begins from 200 A. D.

Sources of information are as follows:—(1) The records of Chinese travellers. (2) Ceylonese History. (3) History of the Western Kṣatrapas. (4) Gupta inscriptions.

Ceylonese History is expressed in Buddhist years. Dates of Chinese travellers are known in A. D. years. Dates of W. Kṣatrapas are known in Śaka years. Gupta inscriptions record in Gupta years.

They all agree, severally and conjointly, with one another. It is thus shown that the harmony of results is an unprecedented one in the Ancient Indian Chronology. Further treatment of the subject and allied questions are reserved for another occasion.

Inferences and conclusions made on various grounds are summarised as follows :—

- (1) The Imperial Guptas are only those kings whose names stand in the genealogies of Bhitari record and Bhitari seal. All the rest belong to a different stock or are off-shoots.
- (2) The Gupta Era begins in about 200 A. D.

- (3) The Vallabha Era (or Gupta-Vallabha Era) begins in about 319 A. D.
- (4) Mālava Era is very likely the Vikrama Era.
- (5) Dates of the Nirvāṇa of Mahāvira and Buddha are about 527 B. C. and 534 B. C. respectively.
- (6) Traditional dates are generally correct.
- (7) Statements from Chinese annals must be considered seriously.
- (8) The accepted date of Fa-hien (399-414 A. D.) is incorrect.
- (9) Ceylonese history is generally correct in its chronology.
- (10) The Western Kṣatrapas suffered defeat at the hands of the Guptas. We cannot say that they were overthrown by them.
- (11) Ideas about Buddhism and Hinduism must be revised. (So too, about the literature.)

XI.—Ethnology and Folklore.

Modern Conscience towards Racial Problems. *By P. N. DAROOWALLA.*

The modern conscience towards various races has been awakened and it is in the fitness of things that the causes of this awakening should be examined to create a bond of union between different races. The causes are mainly the spread of democratic ideas among the people of the East. Japan has shown what the East can do by imitating the West with due modification. Language is a bond of union. The great influence of English tongue and English literature on eastern countries and on national aspirations should be noted. The influence of the press in spreading news from the different parts of the globe has contributed to intimate knowledge of different races. The West has turned seriously to study eastern languages and the rich contribution to religion, philosophy, art, has been freely acknowledged by Western scholars. The study of the oldest code of laws of Hamurabi has thrown a flood of light on the ancient civilisation of Babylon and Assyria. The influence on scientific and religious law has been traced to the code of Hamurabi. The teaching of Zorastrianism as it is contained in the Gāthas, has been taken up in the universities of England Germany, France and America. Among the several spells the most effectual is the adaptability of this ancient Religion.

The *Mahābhārata* and the *Rāmāyana* are the great epics of the Hindus and their contribution to philosophy, legend and religion is immense. They are the living forces among the Hindus and rich narration is hardly surpassed. There are conceptions of law and justice contained in ancient religions. Among the ancient nations, law and medicine were not separate professions. Law is invariably interwoven with religion. English Classics have shown the readers of the West the national character of the Asiatics. Western scholars have found intellectual wealth in these works.

The *Shahnameh* of Firdausi has revealed to the western mind the great and noble heroes that flourished in Persia. The contact of the East with the West has counteracted the tendency towards materialism, while the contact of the West with the East has awakened the national consciousness, to leave off speculation and to turn to commercial and industrial regeneration of Asia. India has come into contact with England and her influence is the greatest. The reformation in England has given rise to reformation in India and old superstitions and caste prejudices are dying out in the wake of education.

Note on the Dissolution of Castes and Formation of new ones. *By S. V. KETKAR.*

1 The usual suppositions that every member of the Hindu community is bound firmly to a certain caste and that castes are air-tight compartments and that if castes are not quasi-eternal entities, they are at least corporations dating from a period too far removed from the historian's gaze, are all unhistorical.

2 The very contrary statement could be made with an overwhelming evidence, that during the last 3000 years there has been no period in the social history, when the process of dissolution of the old groups and of the formation of new ones was not going on.

3 The existence of a number of castes could be explained by one process, viz. when classes, tribes and nations lose their expansive character, they are formed into castes.

4 The sentiments, either expansive or restrictive, arise or decline in classes, tribes and nations; admission of foreigners or otherwise depends on the sentiment of that period.

5 History of the formation of castes means history of the formation of nations, classes and other loose social groups.

6 The line of demarkation between castes on the one hand and classes, tribes and nations on the other, is not so sharp as it is supposed. As expansion or restriction depends on the varying sentiment of the group, description of the group demands greater exactitude. Among the various social groups which we may find named at two different periods of history, whether that group was a tribe or a caste or a class should be determined by actual observation of the facts of the times. Without positive evidence no conclusion should be drawn that the same group observed the same restrictions at both periods.

7 Expansion seems to have taken place not by the corporate effort, even when caste or tribe had a government, but it became possible by active and powerful persons arising in the caste ; they moulded the shape of the caste afterwards.

8 Generally more dominant and powerful castes show tendency towards expansion. Weak castes are generally restrictive.

9 We shall find that non-admission of a foreigner of the group into the group or non-admission of the progeny of mixed marriages into the group are not rules which are strictly followed by any caste whose history is known so far. In this expression a large number of the prominent castes in Mahārāṣṭra such as Chitpavan, Desastha and Karada Brahmins, Marathas, Malis, Sonars and Mahars, the Gauda brahmans domiciled in Deccan are included, so also are included castes like Rajputs and Kayasthas of Northern India and Bengal and Vellalas, Telagus of Madras Presidency and the Karnas and Khandaita of Orissa and Bhils, Gonds, Katkaris, Kaikadis etc.

10 It should be stated that this process has been taking place for centuries, that is, long before the modern creed of social reform was born.

11 When a new class or a nation builds itself it slowly incorporates (1) families and classes, (2) sub-castes of other castes. When such a process takes place, a new principle of social formation arises with it.

12 When new principles of social formation arise, old castes crumble and new groups arise.

13 In a number of cases in the new group old ethnic distinctions are retained, the sub-castes and families of various origin become sub-castes of the new group. Greater contact and stronger affinity developing subsequently, greater unity is created and the new caste acquires solidarity.

Marriage Customs in Western and Eastern Nations.

By S. S. MEHTA.

Marriage is an event of gravity and essential religious elevation in the life of the Hindu. Great importance is attached to it among all nations, who look upon Matrimony as a form of contract. The wife leaves her father's protection and seeks shelter under the roof of her husband where pure and happy love reigns. In a society so primitive as that of the Vedic times, there was no religious obligation that every girl should be married. It is also gathered that the bride was almost of equal age of puberty with the bride-groom during the times of the Vedas; the Smṛtikāras made them younger in age, and enjoined the time of celebrating nuptials earlier; and put a mandate over all girls for compulsory marriage. The bride had a voice in selecting her husband for life during the Vedic ages; whereas latterly, the parents managed all about the marriage. Polygamy was allowed among Hindus as also among many other nations; but it was confined to kings and wealthy lords, as a general rule.

In the Sūtra days, six forms of marriage prevailed; and two others came later to be added to these :—

- (1) Brāhma—The father pours out a libation of water and gives his daughter to a suitor-student.
- (2) Daiva—The father decks his daughter with ornaments and gives her to an officiating priest, when sacrifice is being performed.
- (3) Ārsa—The father gives his daughter for a cow or a bull.
- (4) Gāndharva—The lover takes and weds a loving damsel.

- (5) *Kṣatra* (*Rāksasa*)—The bridegroom forcibly takes a damsel, destroying her relatives by strength of arms.
- (6) *Mānuṣa* (*Āsura*)—The suitor purchases a damsel from her father.
- (7) *Prājāpatya*—The father gives away his daughter to the Suitor, saying 'Fulfil ye the law conjointly'.
- (8) *Paiśāca*—A man embraces a woman deprived of consciousness—it was a form of rape.

Marriage marks, no doubt, an entrance to a new stage of life—the life of a householder—the chief part of religious ceremony in a praiseworthy form of marriage among the Hindu consists of the bride-groom sending messengers to the house of the girl's father, reciting Rv. X 85, 23; and if the proposal pleases both the parties, the promise of marriage is ratified, and both parties touch a full vessel into which flowers, fried grain, barley and gold have been put, and then they recite a formula. The bride-groom then performs a sacrifice. On the appointed day, the bride's relations wash her with water fragrant with the choicest fruits and scents, make her put on a newly dyed garment, and cause her to sit down by a fire, while the family Ācārya performs a sacrifice. The bridegroom, who has also bathed and gone through auspicious ceremonies, is escorted by happy young women who are not widows, to the girls house, (*Sāṅkhyāyana*).

The Institutes of Manu enumerate all the forms noted above; but Manu's sense of decorum rebels against some of them; and he observes: "The *Paiśāca* (seduction) and the *Āsura* (sale) must never be used"; so also: "No father who knows the law must take even the smallest gratuity for his daughter; for a man who, through avarice, takes a gratuity, is a seller of his offspring." We are, again, reminded that even a *Sūdra* should not take a nuptial fee; and that such a transaction has never been heard of. Widow remarriage prevailed in Manu's time, although it was not approved of by the orthodox. Inter-marriage was freely allowed provided that a man of a lower caste did not marry a woman of a higher caste. Marriage between relations was strictly

prohibited in Manu's *ti sapinda* on the mother's side, nor belongs to the same family on the father's side, is recommended to twice born men for wedlock and conjugal union." (III 5) The ancient custom of raising issue on a brother's widow seems to have fallen into disuse in Manu's time.

In the Puranic age, marriage was arranged by the parents of the bride or the bride-groom; but no gifts were settled; but the husband made a gift in advance which was the wife's property (*Stridhana*) ever after. In the modern age, castes have become more rigid, and Brahmans never marry any woman except one of their own caste.

The ceremonies :—

- (1) *Vāgdāna*—Betrothal.
- (2) *Simānta-pūjana*—The worshipping of the boundary of the town or village—and receiving with due hospitality the bride-groom and his party.
- (3) The arrival of the bridegroom at the house of the bride.
- (4) *Madhuparka*—The mixture of treacle and water offered for drink; and the adoration of the bride-groom and party.
- (5) *Viśtarāsana*—The offering of the Darbha-seat to the bride-groom.
- (6) *Mangalāṣṭaka*—While veiling and curtaining the bride, benedictory verses are recited to prepare them to see the faces of each other.
- (7) *Paraspara-nirīksana*—Seeing the faces of each other.
- (8) *Kanyādāna*—Actual gift of the bride to the bride-groom.
- (9) *Suvarṇābhiseka*—Giving a bath with a gold piece in the water.
- (10) *Sūtravestana*—Tying of the auspicious thread of marriage.
- (11) *Kāṅkana-bandhana*—Putting on of the bracelet.
- (12) *Aksatāropana*—Putting in of auspicious rice mixed with milk, ghee &c.—on each other's heads.

- (13) Tilaka-puspamālādhārana—Anointing each other by the marrying couple, with an auspicious nuptial mark on the forehead and garlanding each other.
- (14) Maṅgala Sūtra—Bestowing an auspicious decoration on the bride.
- (15) Vastragrānthi-bandhana—Tying up of the garment knot of both.
- (16) Vivāha-homa—The connubial fire and sacrifice.
- (17) Pāṇigrahanā—Joining the hands in marriage.
- (18) Saptapadī—The seven steps on small heaps of rice.
- (19) Dhruva-darśana—The sighting of the Pole Star, Arundhati and the seven-sages-constellation.
- (20) Gṛhapraveśaniya-Loma—The sacrifice to the holy, fire before entering the bride-groom's house.
- (21) Airīṇidāna—In a bamboo basket, grains &c., are filled and given away in alms.

Most of these ceremonies are common to Brahmins of different provinces and presidencies in India; but the Prarthana Samaj, the Arya Samaj and such other institutions that are mostly the result of modern civilization, generally dispense with many details and also with many main rites, out of those that are noted above. The Parsi has much in common with these ceremonies. According to Dr. J. J. Modi the ceremony of marriage can be divided into three main groups :—

(a) Mutual presents ; (b) Witnesses ; (c) Ceremonies.

Mutual Presents.

(1) Money payment ; (2) rings ; (3) dress ; (4) articles of food.

1 Among the Romans and ancient Christians, this payment of money was known as Earnest-money ; and among ancient Jews, it was essential for a betrothal. It may be symbolic of purchase-money.

2 Rings are given as gift ; and may be a remnant of bride-purchase, when marriage must have been equivalent to bride-catching. In the Christian marriage service the ring is put on the book. The Doges of ancient Venice threw

on the Ascension day every year a ring in the Adriatic, which ceremony has been immortalized by Byron. According to Gibbon, a ring in the 5th century A. D. was regarded as a pledge of affection.

3 Dress is regarded as auspicious. The dress among the Hindus, the Parsis and the Mahomedans is peculiar to each but the common characteristic is that it is rich and pompous. The Roman bride used to wear a white gown.

4 Food—Milk, curds, honey, sugar, cocoanuts &c., form the principal articles for mutual exchange. So far the Parsis have common features with the Hindus; but the Parsis would add fish to all these as a special feature of their marriage-rite.

Witnesses.

- (1) Relations and friends on both sides;
- (2) Fire;
- (3) The departed souls;
- (4) Musical bands;
- (5) Marriage feast.

These are common to the Hindu and the Parsi. Among the ancient Romans, holding of fire and water as necessaries of life, before the bride, prevailed at the time of marriage. In some parts of Australia, the brides carry fire to the houses of their respective bride-grooms. Among the Assyrians, the father of the bride-groom invoked the double of Nebo and Merodach and prayed to them to grant long years of happiness to the young couple. Moreover, among the ancient Greeks, the marriage feasts were believed to signify that they served as an evidence of marriage.

Rites and Ceremonies.

- (1) Planting the Mandapa branch;
- (2) Marking the foreheads of the couple;
- (3) Marking the doorposts of the house;
- (4) Orientation or turning to the East;
- (5) Throwing of rice over the couple;
- (6) The clapping of hands;
- (7) Presenting water before the couple;
- (8) Garlanding;
- (9) Breaking articles of food;
- (10) Sacred baths;
- (11) Curtaining and Veiling;
- (12) Hand fastening;
- (13) Skirt-fastening;
- (14) Circling and tying the knot;
- (15) Feet-washing;
- (16) Eating together.

Most of these ceremonies are a common feature of the Hindu and the Parsi.

1. Planting a branch and erecting a mandap is common to the Hindu and the Parsi. "The same idea is to be traced in the form of survival, in the custom of giving a branch of laurel to a bride which is found, according to Mannhardt of Carnac in Brittany, in the introduction of a decorated pine bough into the house of the bride, met with in Little Russia; as well as in the ceremony of carrying the May adorned with lights before the bride and bride-groom in Hanoverian Weddings."

2. According to Col. Dalton, marking the foreheads prevails among many aboriginal tribes of Bengal; and Mr Sidney Hartland describes the same and considers it, along with some others, as a relic of ancient blood covenant observed on Marriage. The Svastika of the Hindus can be traced in a modified form to the Tau among the Egyptians and the Cross of the Christians.

3. Among the ancient Romans, the bride applied oil to the door-posts, oil being regarded as a symbol of prosperity.

4. On the custom of orientation, Mrs. Murray Aynsley says :—

"In European common life also, when passing the wine or dealing a pack of cards, we commonly hear it said that this should be done the way of the sun, and the same persons deem it most unlucky, if through inadvertence, the bottle be sent round the other way."

5. Grain is symbolical of plenty. In Poland the father of the bride-groom, after the nuptial benediction, welcomes the married couple into his house, by throwing over their heads grains of barley corn (Howett). Among the Hebrews, grains of barley were thrown in front of the couple, meaning to denote their wishes for a numerous progeny. In Nottinghamshire and Sussex, the sprinkling of rice over the couple was a prevalent custom, and in ancient Spain, not only the parents of the couple, but even the passers-by sprinkled corn. In England, they throw rice after a newly married couple.

6. This ceremony is peculiar to the Hindu and the Parsi; and Rev. Padfield assigns a peculiar significance to it.

7. Among the ancient Romans, both the bride and bride-groom touched fire and water, because all things were supposed to be produced from these two elements (W. Tegg's "The Knot tied").

8. In ancient Greece, the priest put a crown on the head of the bride-groom; in Athens, a friend of the bride put on a crown; in Egypt, the bride put on a crown; in Norway, the bride put on a crownlike jewel; in old Anglo-Saxon Churches, the priests blessed the pair and put garlands round them. "Bride-groom and bride were crowned as victors, assuming their purity over the temptations of the flesh." "The bride-groom's wreath was for the most part of myrtle, the bride's of Verhena."

9. In Scotland they used to break a cake over the head of the bride at the threshold of her husband's house, when after marriage she entered it for the first time. Among the Hebrews, a similar custom prevails. Among the Greeks, according to Dr. Potter, when the bride-groom entered the house with his bride, it was customary to pour on their heads, figs, and diverse other sorts of fruits, as an omen of future plenty.

10. Among the ancient Greeks, among the ceremonies bearing religious character which preceded the wedding, an important part was played by the bath. Among the ancient Hebrews, sacred baths preceded solemn religious rites.

11. "The veil put on by the Christian bride is a remnant of the old custom, signifying that she conceals her face from her husband." The early Christians derived it from the Romans. Among the Hebrews, the bride put on a veil which is to be removed after marriage.

12. Among the Christians, "after the Council of Trent, it was customary in many places for the priest to entwine the ends of his stole round the joined hands of the bride and the bride-groom at the words—'those whom God has joined together'—in token of the indissoluble union thereby effected"

(M. E. Howett). In Finland the father of the bride-groom fastened the hands. Among the Greeks this ceremony was considered as ratifying the agreement of marriage. Among the Assyrians, the father of the bride-groom fastened the hands of the couple with a woollen thread.

13. The bride and bride-groom, among the Hebrews, were made to walk under a canopy of cloth, signifying unity of protection. Among the Santals, the clothes of the married couple were tied together as a symbol of union.

14. "A circle signifies endless union." In France, a canopy is held over the couple during the ceremony; and in a certain part of Spain, the custom is prevalent.

15. In Scotland, the unmarried friends of the bride washed her feet on the eve of marriage; the custom, in a similar way with a modified form, prevailed among the ancient Romans and Hebrews, as well as ancient Greeks.

16. Among the ancient Romans, "Confarreatio" was a ceremony for the bride and the bride-groom to taste together the holy cakes—also called "panis farreres"; among ancient Greeks, they ate a quince. This custom similarly prevailed among the Hebrews, the Melanesians, the Papous, the Yezuadees and many other races as well as nations.

A brief History of the Survey of the Ethnography of Bombay. By J. J. MODI.

On account of its geographical situation and its commerce and on account of its rise to the position of a great city from its original state of being a fishing village, Bombay is spoken of as 'The Alexandria of India'. It is the brief historical survey of the Ethnography of such a city, made beautiful by the hand of Nature and then by the hand of Man, that forms the subject of this paper.

Bombay owed its birth to the last throbbings of the Volcanic pangs of the Western coast of India in a very early pre-historic age. The objects found during the excavation of our Prince's Dock and some stone implements discovered on the shore of the beautiful Back Bay, show that the level of Bombay has undergone a change in pre-

historic times, since the time of a general subsidence, which, on account of its having gone to the Bombay coast its present outline is spoken of as the 'Bombay Break-off'.

Going to the very dawn of history—history presented not by inscriptions, coins, monuments or books, but by some coastal finds—we find some evidence of Bombay being inhabited by some people in the Neolithic age. In a paper entitled 'Some rude stone implements from Back Bay, Middle Colaba, Bombay', read by Mr. Swynnerton, before the Anthropological Society of Bombay, some flints found on the shore of the Back Bay, were exhibited as stone implements used by the prehistoric people who inhabited our island of seven islets. These Back Bay 'coast-finds' are compared with the 'coast-finds' of Denmark which are associated with the well-known Danish Kjokhins middlings or kitchen middlings or as they are called, the refuge-heaps found along the coast of Denmark. Again close to the flint flakes at the Back Bay was found a fossil tooth "the first fossil belonging to a mammal found at Bombay". These Back Bay pre-historic people were in very low stage of culture, people like the 'cave-men of Europe' though not necessarily of the same age.

Coming to the historic age, we may divide the period into Hindu period, Mahomedan period, and coming down to our times, the European period, the period of the advents of the Portugese, the French, the British &c. The Hindu period had the following dynasties:—1 The Mauryans, 2 the Śātakarnīs or the Śālavāhanas, the Āndhrabṛtyas of the Purāṇas, 3 the Rastrakūṭas, 4 the Maurya chiefs of the Konkan, an offshoot of the early Mauryans, 5 the Cālukyas (7th century A.D.), 6 the Śilars or Silaharas, 7 the Devgir kings.

In the discovery at Sopara, about 30 miles from Bombay on the B. B. C. I. Ry., of a fragment of Aśoka's edict, we have the evidence of the Mauryan rule, during which time the Kolis were the first settlers of Bombay. They were the Dravadian aborigines of the country. The presence of the Śātakarnīs who overpowered the Śakas, the Pahlavas an off-shoot of the Parthians of Persia, the Yavanas &c. is

evidenced by a numismatic find. A further band of Kolis came here during this period. It is of the India of this time that Ptolemy speaks. It is at about this time that the early settlers of Bombay, the Kolis, came into contact with the traders from the West, among whom there may be even some Sassanian Persians. In the discovery of the 'Dramma' (Pers. dirhem) at Cavel, Mr. Edwardes finds "the first direct evidence of Bombay's connection with civilization" a connection which became stronger in the times of the Hawya chiefs of the Konkan. With the next dynasty of rulers, the Silaharas, there came to Bombay and to the adjoining country the Agris, the Kayashths, the Arabs, the Parsees and Israels. With the advent of the Devgiri kings, and among them especially of Ramdeo, Bombay began to assimilate to a greater extent the Hindu Civilization of North Konkan. Then there came to Bombay, people of a number of castes. The Prabhu, the Palshikar Brahmins, the Bhandaris, the Panchakalsis, the Thakurs and Bhow, all followed after one another.

Coming to the Mahomedan period, we find the advent to Bombay and to the adjoining country of the Arabs. The Konkan Mahomedans are somewhat connected with this advent. Latterly there came other Mahomedans from northern India.

Totemism, Exogamy and Endogamy among the Aryan and Dravidian Hindus. *By J. A. SALDANHA.*

The caste-system is more rampant among lower classes of Dravidians than other peoples in India. And their society discloses a totemistic exogamous organisation which closely resembles that prevailing among aboriginal tribes in Australia and North America. These systems can hardly be traced among the *ancient Aryans* in Europe, Central Asia or India. Exogamy as such can first be traced only in the Sūtra period of the Vedas, among the Aryan Hindus. It seems therefore on a careful study of comparative ethnology

and history, that the Aryan Hindus are indebted for their exogamous system, prohibition of marriages of sister's children and some other phenomena in their social life, to the practices prevailing among the Dravidians with whom they coalesced. The author discusses the theory in the light of recent ethnological lore.

XII.—Technical Sciences.

Mathematics.

The Constructive Geometry of Altars in the *Vedas*. By
R. N. APTE.

1 Constructive Geometry of Altars as treated in the *Śulvasūtras* is given and discussed by Dr. Thibaut and Dr. Bürk. They have also shown how the construction of Altars in the *Vedas* presupposes an amount of geometrical knowledge. It is the object of this paper to give some new points in this connection.

2 The method of determining the East-West line as given by Varāhamihira stated. It is shown from passages in the *Vedas* that the central East-West line of the Sacrificial compound is a very important line.

3 The Cayana or high-Altar. of bricks considered and passages from the *Taitt. Sam.* and *Taitt. Brāhmaṇa* cited to show the Nakṣatra bricks and the way of consecrating and laying them on the Cayana.

4 This shows that the East-West line was determined by the rising and setting points of the asterism Kṛttikā and verified by the Sun's position on the equinox day; and from this the age of *Taitt. Sam.* determined to be about 3000 B. C.

5 The next line of reference in importance is a North-South line. The way in which this was determined in the *Vedas* pointed out.

6 The Aksṇyā (अक्ष्या) the hypotenuse of a right angled-triangle given in the *Vedas* explained and the way in which $\sqrt{\frac{1}{2}}$, $\sqrt{3}$, $\sqrt{4}$,.....found by the *Vedas* by geometrical construction pointed out by considering the Ekavīṁśagni of Aśvamedha and the Anekavidhapuruṣa Cayana.

7 The *Śulvasūtras* were only meant as guides for practical construction and cite the theorem of the hypotenuse, or

the theorem of Pythagoras as it is called, as already well-known.

8 The Mahāvedi—the measurements of it given in the Vedas geometrically discussed, which leads to the conclusion that the theorem was known in the times of the Vedas.

Naksatras and Precession. *By G. R. KAYE.*

Mr. G. R. Kaye very briefly refers to the generally accepted view, that the naksatras are certain constellations that mark the ecliptic. He distinguishes the ritualistic, stellar and scalar aspects of the naksatras and hints that these may indicate a mixed origin. He refers to certain passages in early texts that indicate, that the constellations revolve with reference to the naksatras, points out that this implies a knowledge of precession, and suggests that the naksatras conceived as an ecliptic scale whose initial point is the vernal equinox, would fit these passages, and would perhaps clear up many other controversial points.

Astronomical Phenomena in fixing the Chronological periods in Indian History. *By V. B. KETKAR.*

- 1 The Aryans lived in an age when there was no public era.
- 2 The existence of the celestial eras.
- 3 Aryan observations available for the determination of the ancient dates.
- 4 The date of the Solstices in the Vedāṅga Jyotiṣa.
- 5 The age of the Kr̥ttikās' rising due east.
- 6 The date of the occultation of the star Pusya by Jupiter.
- 7 The date of the first appearance of Canopus on the ridge of the Vindhya Mountain.
- 8 The drinking off of the sea by Agastya explained.
- 9 The date of the Battle of Kurukṣetra.

10 The Gavāmayana, which resembles in sound the Egyptian word Epagomene used in the same sense.

Medicine.

Rasavidyā or Alchemy in Ancient India. By R. V. PATVARDHAN.

It is difficult to say definitely in what country Alchemy arose. But neither Egypt, nor Greece could be its birth-place. The works of Geber, the Arabian Alchemist, are the oldest genuine works extant, and treatises attributed to the Egyptian Hermes are undoubtedly spurious. Greek philosophy was anthropomorphic and never indulged in occultism. Mysticism in Greek philosophy is due to the influence of oriental transcendentalism of which neo-platoism or pseudo-platonism was the result. The 3rd and 4th centuries of the Christian Era are notorious for forgeries in the sphere of occultism. Alchemy or Chemia was not derived from Chemi; neither was *chemi* ever a name of Egypt. Chemia was derived from *chymies* a word coined in the 3rd century A. C., and the word *chemia* in the sense of Alchemy was first used by Snidas a lexicographer of the 10th century,

The tradition that Emperors Severus and Diocletian caused the Egyptian works on Alchemy to be burnt, finds no support from trustworthy authors. There is no reference to Alchemy in the works of Herodotus, Diodorus, Plutarch and Pliny. The medicinal properties of mercury, which plays an important part in alchemy, were unknown to the Greeks. Consequently the Greeks must have been unacquainted with Alchemy before the 3rd or the 4th century A. C.

On the other hand we find that in the Satakas of *Bhārtr̥hari* who flourished about the 1st century A. C. there are clear allusions to alchemy. In the alchemical works compiled by the Greeks there are references to Oriental and Persian authorities, and Ammianus Marcellinus a great Roman historian of the 4th century tells us that the *magi* or Persian priests derived their *secret arts* from the Brahmins of India. From this it appears probable that India and not Egypt was the birth-place of Alchemy.

Metrics.

A short Note on the Use of Metres by Sanskrit Poets.
By A. S. BHANDARKAR.

Need of artistic appreciation and pure literary criticism as such in Sanskrit literature Metric fault Yatibhaṅga occurs when a pause due to a metre falls in the middle of a word in the absence of sandhi. There is a science and art underlying the use of metres, in general, by Sanskrit poets especially Kālidāsa.

Well suited for narration due to their shortness—*Anuṣṭubh*, *Upajāti*, *Vaiṁśastha* most prominent; *Vasantatilakā*, *Mālinī* following. Appropriate use of *Mandūkrāntā* in *Meghadhūta*, of *Anuṣṭubh* and *Viyoginī* in *Kumārasaṁbhava* II, *Raghuvaiṁśa* X and *Kumāra*. IV, *Raghu*. VIII respectively. A change in metre relieves monotony and is often introduced at the end of a canto to give the subject matter a kind of finish.

A Sanskrit drama with its essentially lyrical nature and comparatively slow development of action offers good opportunities for a variety of meters in consonance with the prevailing sentiment or atmosphere. *Sragdharā* mainly a metre of heroic and kindred sentiments and seldom used in dramas of love and pathos; therefore, its abundance in *Madrārākṣasa* and *Venīsaṁhāra* end all but total absence in Kālidāsa's works. Also, scarcity of *Śikharinī*, abundance of *Āryā* and liberal use of *Vaiṁśastha* and *Upajāti* in these works as compared with those of other poets.

Sragdharā.—Used chiefly in dramas of heroic and kindred sentiments and in invocations. Suited for descriptive purposes on account of its length.

Śārdūlavikridita :—Mainly a metre of softer sentiments and nature's normal moods. Among longer vṛttas most favourite with Kālidāsa after *Vasantatilakā*. Its length suits it for descriptive purposes like *Sragdharā*.

Śikharinī :—Sparingly used by Kālidāsa. Fit for conveying pathos because of its syllable arrangement.

Mandākrāntā :—The most symmetric of metres. Its four opening long syllable justify its name and fit for depicting nature in her calmer aspects.

Hariṇī :—A somewhat symmetric metre having a sad, sweet melody when sung in tune. Unlike other poets Kālidāsa uses it only on choice occasions. Some *Hariṇīs* in *Uttararāmacarita* III are also beautiful.

Pr̥thvī :—Sparingly used by Sanskrit poets. Examples of it in *Uttara*. and *Veṇi*. are charming because of alteration and mainly concern the heroic sentiment. Equally symmetric with *Hariṇī*.

Mālinī :—After *Vasantatilakā*, most used among metres of medium length. Its opening short syllables render it fit for conveying hurry, excitement &c. Frequently used as a change metre by Kālidāsa in his narrative poems.

Vasantatilakā :—Most used among metres of medium length. Kālidāsa is specially fond of it and often uses it as a change metre in his non-dramatic poems.

Vaiśāstha, *Indravajrā*, *Upajāti* :—Comparatively scarce in the works of dramatists other than Kālidāsa, probably because the latter was used to them in his narrative poems.

Śālinī :—Rarely used. Wide difference between the number of its short and long syllables. Those occurring in *Uttara*. contain subject matter noble or dignified in tone.

Aryā :—Most favourite with Kālidāsa but least so with other poets. Its preponderance in *Mālavikāgnimitra* points to Kālidāsa as being the author of the work.

Anuṣṭubh :—A metre of old and sacred tradition. Therefore, frequently used in invocations, propitiation of gods and in connection with revered characters generally containing high moral, ethical or similar ideas. Fit vehicle for alaṅkāras like *Upamā*, *Dr̥ṣṭānta* etc. because of its shortness.

Music.

Early History of Music. By E. CLEMENTS.

Early history of music involved in confusion. The musical training and surroundings of the European make it

almost impossible for him to understand oriental music. His prejudices illustrated.

It is fallacious to take the theories of ancient writers on music at their face value. They knew nothing of science. The idea that Greek music was based mainly upon the scale of Pythagoras is also erroneous.

The nucleus from which the chief systems of oriental music sprang was a musical civilisation in Central Asia which favoured the scale (*odhava*). In Assyria and Egypt the harp was the chief instrument. In ancient Greece the lyre became many stringed like the harp. In India the harp was probably in vogue in Aryan times. It was succeeded by the *vina*.

In Greece 'the art of the sārangi-player' was brought to a high degree of excellence. Many-stringed instruments led to an intricate notation and a system of keys. The tradition of all this had its effect on the evolution of modern European music, which is distinguished by (1) relying for unity of mode upon successions of chords, not so much upon a chief note (*sāmāvādi* or *āṁśa svara*), (2) a system of keys, by means of which one can repeat phrases of melody at different pitches and so introduce variety (modulation), (3) the leading note, the tonic or fundamental note of every mode having a note a semitone below it which leads up to it. The last property leads to a paucity of modes. To counterbalance this, modulation is resorted to more and more. The second property made temperament of some sort inevitable. Equal temperament was finally adopted about 1850.

In India, the Aryan system appears to have been superimposed upon an indigenous or Dravidian system. Indian music resembles ancient Greek music to a remarkable extent, in its modes and their derivative the *rūgas*. The music of Europe and that of India belong to the same family. It may be inferred that each has something to gain from the other.

Principles of melodic Classification in Ancient Indian Music. By V. G. PARANJPE.

The pre-requisites of the study of the ancient melodic

classification, as known from Bharata, would be the interpretation of technical terms like Mūrchanā, Jāti and Nyasa and a differentiation of the absolute and the relative pitch in point of aesthetic valuation.

In the relative pitch Sā is always the key-note, in the absolute any note may be the key-note. Old Indian music employed the absolute pitch; the relative pitch is used now, while both were in use in the mediaeval period.

The Grāmas were sets of fixed notes, not varied ordinarily, which with a key-relationship established among themselves formed the Mūrchanās or musical scales.

Mūrchanās were understood by mediaeval writers to denote pitch, but from indications such as the identity of Mūrchanās in the two Grāmas, these being susceptible of variation &c. they clearly denoted scales in Bharata's book.

Of the 14 Mūrchanās only 9 were actually used. The number of Mūrchanās and Tānas was a matter of theory only.

The Jātis were the genera under which the musical modes were grouped together, these being the modal elements of which the Nyāsa was the final note constituting the key-note in all Jātis except two, where it occurs as an ending note not amounting to the key.

Tables of the twenty-two Śrutis and the Svaras, of the scales and Jātis and the intervals used, with their values in relative pitch, have been given in the body of the essay in their proper places.

The ancient system consisted in sorting out melodies under modes, which were recognized as varieties of the Jātis, amongst the variable modal elements being the Amśa, the Aparyāsa, and occasionally the Nyāsa, amongst the invariable ones being the Sañcāri Varnas and the proportions which in the Svaras were blended to form the melody and the Nyāsa. The Jātis themselves, when divested of the ten modal tissnes were reduced to the skeletons of the scales and the scales were reduced to the two Grāmas. The modal elements of the Jātis in Bharata indicate exceptional powers of observation and analysis and scientific enumeration and

classification. The system, however, did not retain its vitality long. The Jātis soon made room for the Rāgas, the chromatic intervals and the relative pitch and the old classification became useless. The insufficiency of the number of Grāmas being at the root of the disappearance of the old system, it is a question whether the old system of classification, which has at least a scientific basis and has a parallel in the Greek system of scales and letrachords, could not be revived with advantage, care being taken to arrive at a sufficiency of Grāmas that would meet all the requirements of modern music.

XIII.—General.

Sanskrit and its Claims upon our Attention. By GOVIND SADASHIV APTE.

1 We meet here to consider in what best way the study of Sanskrit may be encouraged.

2 Any wrong notions about Sanskrit can be corrected by attending conferences like the present.

3 A magazine like the Bhandarkar Research Institute Magazine will greatly facilitate the work of research and will supply a long-felt need of Sanskrit scholars and researchers.

4 Dr. Schröder's proposal to make Sanskrit the Lingua Franca of India is not feasible; but it rests with us to allow Sanskrit to remain a dead language or to make it a revived, if not a permanently living, language.

5 The grammar of Sanskrit may be written in a simple language and the language itself may be made more elastic and richer than at present by writing works in Sanskrit on Modern Sciences.

6 The Gwalior Darbar Government is contemplating a scheme for organizing a library of Sanskrit MSS. in the Gwalior State.

7 The following are the results of my study of the Hindu Astronomy, in which I am interested.

- (1) From the verse 99th Ch. IV, 18 of *Jñaneśvari* and from some references in *Sūryasiddhānta*, *Siddhāta-siromani* and *Grahalāghava* I infer that the Hindus were acquainted with the Copernican System of planets, two centuries before Copernicus lived.
- (2) The verse 19th of the *Vedāṅga Jyotiṣa* is considered unintelligible; but I think that the interpretation which I propose in this paper, gives a meaning to the verse and the information we thus obtain is some useful knowledge of Astronomy.

- (3) Lastly, I show the validity of the *Vedāṅga Jyotiṣa* by interpreting the 12th and 14th verses of the *Yajurveda Jyotiṣa* and the 5th verse of the *R̥yveda Jyotiṣa*, in the way I have indicated in this paper. These verses also are some of the 12, which are not yet properly understood.

Old Gujarātī Poets: A Critical Exposition. *By D. D. DAVE.*

Old Gujarātī poets are five in number, Narsinh and Miranbai being the chief. All of them flourished between the fifteenth and sixteenth centuries. All of them were not born poets, but were substantially influenced by the Literary, Political and Religious state of Gujarat. Some of the individual characteristics of all the five poets in succession. Then are given some general traits distinguishing the whole group, such as the predominance of Bhakti sentiment, inattention to nature for its own sake, pictures of domestic life and so on. Then the conclusion that the old group of poets had certain characteristics in common, as distinguished from other groups, that they had inherited the language in a form which they developed and enriched by their writings and thus cleared the way for the change in the Vernacular as it is spoken to-day.

Note on the Ancient History and Geography of the Konkan. *By P. V. KANE.*

From ancient times, the Western coast of India has been in close communication with the countries in the West. Scholars hold that many of the articles, with which Solomon (1016-976 B. C.) adorned his court, came from India and that Ophir often mentioned in the Old Testament as the city of gold and precious stones is to be located in India, the probability being that it was Sopara. It can be established with tolerable certainty that from about 600 B. C. Western India carried on a vast trade with Babylon and other Western countries. The Bāveru Jātaka refers to Babylon and several other Jātakas speak of Suppāraka (Sopara) and Bharukaccha

(Broach). Megasthenes refers to the Pāndyas and to Taprobane (Ceylon). Strabo, Pliny, the *Periplus of the Erythraean sea* and Ptolemy testify to the large trade between India and the West. The large finds of Roman coins, particularly in southern India, confirm what Strabo and the other writers say.

The Konkan is a poor country, but its ports, *viz.* Sopara, Chaul, Kalyan, Thana rose to be flourishing marts because they served as the emporia for the commodities of the countries beyond the Ghats.

In very ancient times the Konkan country was known under the name Aparānta. The *Arthaśāstra* of Kauṭilya (300 B. C.) refers to the heavy rainfall in Aparānta. A fragment of Ásoka's eighth edict was found at Sopara and the word Aparānta occurring in his fifth edict probably refers to the Konkan country. An inscription at Nasik and that of Rudradāman speak of Kuhuraparānta. The Mahāvaiṁśa speaks of missions sent by Moggaliputta Tissa to Vanavāsi and Aparāntaka and other countries. These references to Aparānta and Kālidāsa's mention of it in the *Raghuvaiṁśa* establish that Aparānta was the strip of country between the sea and the Sahya north of Banavasi and south of Surat. The Aparānta king referred to by Kālidāsa may have been a Traikūṭaka, that dynasty being so named after the mountain Trikūṭa mentioned in the *Raghuvaiṁśa*. The same country was later on designated Konkan. The northern part of Aparānta from Thana was included in the kingdom of Lāṭa, Navsari being its Capital. Ptolemy speaks of Larike. The *Mahābhārata* (*Anuśāsanaparva*) and the Mandasor Inscription of A. D. 473 refer to Lāṭa.

The earliest reference to Konkan perhaps occurs in Strabo (1st quarter of first century A. D.) who speaks of a country called Koniakoi. Bhīṣmaparvan includes Konkan in the list of countries. The *Bṛhatśāṁhitā* of Varāhamihira (first half of 6th century) speaks of the people of Konkan. The Aihoṇe inscription of 634 A. D. tells us that Kirtivarman I (550-567 A. D.) overthrew the Maurya rulers of the Konkan. Hiuen Tsang gives us a description of Kong-kin-na-pulo. His references to the climate, the soil and the complexion

of the people and the fact that other Chinese accounts tell us that Kong-kin-na-pulo was one day's journey from the sea make it almost certain that the Chinese traveller speaks of the kingdom of the Kadambas of Banavāsi which then included the Belgaum and Dharwar districts. It is thus established that from at least 500 A. D., the term Konkan came to be generally used, though how much earlier, it is difficult to say.

The extent and boundaries of Konkan towards the north and south cannot be ascertained with precision. But as a grant of the Rāstrakūṭa Kṛṣṇarāja speaks of a village on the Tāpi as included in the Konkan, it seems that Konkan extended to the Tāpi towards the North. Navsari, the capital of Lāṭa, once a province of Konkan, must have been included in it. The Konkan Śilāhāra records speak of a city called Hañjamana, which is to be identified with modern Sanjan. As regards the southern limits of Konkan, great difference of opinion prevails. Some Indian writers make Gokarna, 25 miles south of Karwar, the boundary between Kerala and Konkan. The Sahyādrikhaṇḍa says that Konkan extends from Cape Comorin to Nasik. Mādhavācārya's grant of 1391 A. D. speaks of Goa as the capital of Konkan. Jayakeśin one of the Kadambas of Goa, is said to be the king of Konkan. From all these facts it follows that Konkan included towards the south Goa and parts of Karwar and that at times it was supposed to have included Banavasi and the territories of the Konkan kings beyond the Ghauts.

From ancient times Konkan has been subdivided into seven parts. What the names of these seven divisions were it is difficult to say. There were two well-known divisions: north Konkan which was a 1400 province and south Konkan which was a 900 province. Dr. Fleet arranged the divisions as Payve or Haive 500, then Konkan 900, then Iridige; then Konkan 1400 and then Lāṭa. Besides there were many smaller subdivisions of Konkan such as Palasideśa(Belgaum) and Kālagiri Kampaṇa, Revatidwipa, Aṭṭavire Kampaṇa (Adivare in Ratnagiri), Kāpardikadwipa (from Rajapur to Sopara), Kāpura (Sopara to Sanjan); Kandalamūliya (Chaul to Sopara), Śaṭṣaṭī (modern Salsette), Navasārikā, Sopāraka and Khetā (Khed in Ratnagiri).

The origin of the name Konkan is doubtful. In the grants and ancient works various forms of the name occur such as Koṅkaṇa, Koṅkanāna. The Mahomedan writers present even a greater variety. In many grants and inscriptions found in the Konkan, the names of donees and great officers of State are distinctly southern. It cannot be argued that this indicates that the country was inhabited by Kanarese people, or that the Kanarese language was spoken in Konkan. The proper explanation is that as the overlords of Konkan from 600 A.D. were the Cālukyas and the Rāṣṭrakūṭas whose central government was in the heart of the Kanarese country and as the Śilāhāra rulers of the Konkan also came from Tagara, modern Ter in the Nizam's dominions, the ministers and donees were naturally Brahmins from Karnatak. Some derive the word Konkan from a Kanarese word meaning "uneven ground". But this derivation cannot be accepted. The earliest dynasty from the Kanarese country to conquer Konkan was that of the Cālukyas who did so only after 550 A.D.; while the term was well established long before it. North Konkan was Koṅkaṇa governed successively by the Aśokan Mauryas, the Āndhra-bṛhyas, the Kṣatrapas, Ābhiras and later Mauryas from 300 B.C. to 600 A.D. If the word Koṅkaṇa is non-sanskritic in origin, it may be conjectured that it was evolved during the times of the Kṣatrapas and is connected with the Persian word "Koh" meaning mountain. Some connect the word Koṅkaṇa with the Nāga Kuṅkuna occurring in the Udyogaparvan of the *Mahābhārata*. This is far-fetched. It is more likely that the name of the Nāga is due to the name Koṅkaṇa or Kuṅkuna given to the country. Scholars take Kukuraparānta occurring in Rudradāman's inscription as two countries, but the fact, that no sandhi is made elsewhere in the same passage except in Ākarāvatī, shows that Kukuraparānta is one country. One feels tempted to identify Kukura with Kuṅkupa. But there are objections against this. Ancient works like the *Mahābhārata* seem to have kept the words Kukura and Koṅkaṇa distinct. Besides the Kukuras are connected with the Yādava tribes of Dwārā in the *Mahābhārata*. The question of the origin of the term Konkan is therefore still an open one.

कालिदासस्य काव्यानि. By KRISHNAMACHARYA.

- 1 श्रीमानयं कालिदासो महामहिमसु सुखैकमयशब्दप्रपञ्चनिर्माणचतुरेषु महाकविषु प्रथमगणनीयः, यैः पुनरद्यापि पूर्तं च भूषितं च भाति भारतं वर्षम्, ये च सुभाषितामृतासारेण न केवलमात्मानं परं स्वपरिगृहीतं भागधेयजन्मानं पुरुषमव्यजरामरथर्माणमाकल्यन्ति ।
- 2 अस्य च महाकवेः सूक्तिरसाधारणीमुक्तर्थपदवीं शब्दतोऽर्थतत्त्वं परिपूछनाति ।
- 3 ईदृशस्य च समुक्तर्थसौम्यस्य परमं निदानं कविमणिनानेन मुहूर्महूर्भाव्यमानो भगवतो वाल्मीकिः सुभाषितनिष्ठ्यन्दो रामायणं नाम ।
- 4 अनेन च कविच्छूडामणिना ग्रथितानि श्रव्याणि त्रीणि दृश्यानि च त्रीणि काव्यानि, न पुनर्नेलोदयो वा क्रतुसंहारो वा । मालविकामिमित्रमपि महामतेरस्यैव वाचां विलासः ।
- 5 अथं च कविसार्वभौमः स्वकीयेषु सर्वेष्वपि काव्येषु प्रकाशमय वा निगूढं कथातोऽपि श्रीरामायणोपजीवितामासूत्रयति ।
- 6 तत्र श्रव्यदृश्ययोर्मेघसंदेशमालविकामिमित्रयोः, कुमारसंभवविकमोर्वशीययोः, रघुवंशशाकुन्तलयोथं परस्परमतिगाढो मित्रभावः परिदृश्यते ।

State-interference in Ancient Indian Industries. By NARENDRA NATH LAW.

The *Arthaśāstra*, the *Mahābhārata*, and other ancient texts, furnish us with very interesting and instructive evidences in regard to the economic functions of government. Not merely were coins minted and weights and measures supplied exclusively by the government, but the manufacture of salt, and the extraction of minerals were the monopolies of the state. There were also state-departments of agriculture and industries, state-forests, and state-manufacture of luxuries, principally for the imperial household, and the imperial civil and military departments. Indirectly, the state had minute regulations to control the standard of production in some handicrafts, the prices of commodities as well as the place and time of markets, while encouragement was given to those who imported foreign merchandise. Indian importers of foreign goods were favoured with the remission of trade-taxes, and foreign

merchants were exempted from being sued for debts. Through sumptuary laws as well as laws of contracts and the protection of guilds within proper limits, the state prevented economic abuses and tried to keep itself in close touch with the social well-being of the people.

Old Shastric Learning. *By M. A. NARAYAN SHASTRI.*

- 1 Scope and meaning of Old Shastric Learning, and
- 2 Suggestions for its Revival.

Under 1 are included Vedas, their six Āngas, Sanskrit language and literature, Fine Arts and the various Śastras, Astronomy, Medicine, Economics and Mimāṃsā being specially dealt with. Three different periods have been noticed in tracing the gradual decadence of Shastric Learning with some approach to history.

Under 2 organisation of special schools for imparting Shastric instruction to Indian youths, vocational education being correlated with the same. The development of the Bhandarkar Oriental Research Institute, the creation of similar institutions in all parts of the country as auxiliaries to the parent institution, the collection, copying and publication of rare manuscripts from all possible sources, establishment of permanent fellowships to encourage research, the formulation and execution of a scheme of translation whereby modern scientific and other useful literature can be made accessible to the existing generation of Pandits whose services deserve to be utilised in discovering the full scope and comprehension of the Shastric Learning.

Academical Study of Sanskrit. *By P. V. NARSINGRAO.*

- 1 *The value of a study of Ancient Literature with special reference to Sanskrit :—*

- (a) A study of the past has a peculiar interest; it interprets the present and gives a clue to the future; it enables us to comprehend ourselves better.
- (b) Ancient Indian literature is a work of extraordinary merit.

- (c) Study of grammatical science in Sanskrit affords a valuable mental training and is a basis for abstract thinking.
- (d) Sanskrit study is very useful on philological grounds.
- (e) Every Hindu ought to know Sanskrit in order to understand the meaning of his own daily prayers and mantras.
- (f) Sanskrit study has a moral and disciplinary value.
- (g) It binds together the various classes of people deriving their better aspirations from sacred works in Sanskrit.

2 Sanskrit study in Ancient India :—

- (a) Every dvija studied Sanskrit under a highly qualified preceptor.
- (b) Many of these preceptors maintained residential teaching universities and spread a very comprehensive education.

3 Western education lowered the importance of Sanskrit :—

- (a) The graduates of ancient institutions were not so well off economically as the graduates of modern schools.
- (b) The main object of modern schools was held to be the development of western learning.

4 Sanskrit study in Modern Schools and Colleges :—

- (a) The provision made for the study of Oriental languages is inadequate.
- (b) The attainments in these subjects of an average graduate is low.
- (c) Indian languages are seriously neglected.
- (d) Those that wish to specialise in Sanskrit have to study three languages and this is a heavy strain.
- (e) Absence of regular syllabuses, lack of appropriate books and want of efficient teachers have made Oriental education in schools and colleges ineffective.

- (f) The neglect of vernaculars has meant a serious neglect of the pupil's most natural medium of thought.

5 *Sanskrit study in Pāṭhaśālās* :—

- (a) The outlook of the Pandits is narrow. Subjects calculated to widen their outlook should be introduced and elements of secondary education must also be given.
- (b) Oriental studies must be based on historical and critical methods.
- (c) There is no co-ordination of aim between the traditional Oriental languages and the university studies; and therefore the attempts of the University to bring the Sanskrit College under their control have not produced satisfactory results.

6 *Defects of the present system of education* :—

- (a) This system fails to realise the two main objects of a liberal education—mental training and acquisition of knowledge.
- (b) A foreign medium of instruction involves waste of mental energy, presents two difficulties (of language and matter) simultaneously, destroys independence of thought, leads to the evil of cramming and allows no time and energy for a proper study of our languages.

7 *Remedies for overcoming the defects* :—

- (a) Vernacular should be made the medium of instruction.
- (b) English should be made a compulsory second language, with provision for specialising in that language in the case of those that have an aptitude for higher English education.

8 *Re-organisation of Sanskrit Colleges* :—

A *Need for reorganisation*.

- (a) The work done in these institutions is at present inadequate.
- (b) The attempt of the University to apply Western methods to Oriental study has not produced good

results. And there is incongruity of aim between the traditional study of Oriental classics and university study.

- (c) Neither the University nor the Oriental studies have profited in any way by the action of the University.

B Proposed reorganisation.

- (a) Oriental studies on traditional methods must remain undisturbed and the university students may have free access to the learning of the Pandits.
- (b) A systematic study of the Indian languages on modern lines must be encouraged.
- (c) The Sanskrit College must be divided into three sections :
 - (i) A High School department managed by the board of secondary education.
 - (ii) A college department controlled by the University.
 - (iii) A purely Oriental department independent of the University and managed by a special committee.
- (d) The students of the Oriental department after passing the Title Examination may study Sanskrit in western aspects, without going through the High School course and they may be given a diploma or a degree.
- (e) The various universities should open chairs in the Vernaculars of the respective States and encourage the study of vernacular literature and philology.

Some Views on the Problem of Sea-Voyage. By C. VENKATARAMANAIYAR.

Among several social questions of the day, the question of Sea-Voyage rushes in at the very threshold, as the necessity and the circumstances of the present time demand the first and foremost consideration of this subject. The restrictions found in some of the Smṛtis and other works regarding Sea-Voyages to be undertaken by Hindus, especi-

ally by the high caste people, were primarily intended to safeguard the purity of Hindu society and religion in former days, when the facilities for sea-travel and for living in foreign countries uncontaminated, were not existent. The political situation and the material condition of old India favoured such restrictions or prohibitions with advantage. But the time has changed. New ideas on modern scientific basis and modes of life according to the programme of modern civilization compel us to acquire and assimilate them to a certain extent, as we come in contact with other nations day by day. This is necessary for the political advancement as well as for the material progress of India. Hence arises a necessity and aspiration for Sea-Voyage being freely undertaken. As in the present age, when without breaking the social laws and without losing the religious spirit of India, it is possible to live in the foreign country for a certain period with a view to acquire some scientific or industrial or commercial knowledge, or to achieve any other object for the well-being of Mother-India, such restrictions do not hold.

Besides, if Sāstras are properly interpreted, it will be clear that there is no prohibition at all to a sea-travelled man being admitted into social intercourse. As, restrictions laid down regarding 'Sannyāsa Swikāra' &c. along with 'Sea-Voyage' do not find place in practice, the prohibitive nature of the Smṛti diction should not stand in the way of Sea-Voyage.

On the analogy of a man who undergoes imprisonment for any length of time and who is still admitted into society with proper expiation, although the limit of time for such a case is laid down only for one month, the sea-travelled man may also undergo expiation and be admitted into social intercourse, whatever be the time of Sea-Voyage, without minding the time limit of three days found in Sāstras in the same connection.

There is a permissible clause in *Parāśara Smṛti* to amend or change social laws and customs from time to time by competent persons of the age.

These are a few favourable views that can be gathered and expressed on the subject.

Funeral Place of Poet Kālidāsa, a Querry. By SATIS
CHANDRA VIDYĀBHUSANA.*

In 1909, while Mahāmahopādhyāya Dr. Satis Chandra Vidyābhusana was staying in Ceylon, he found in the southern province of Mātara a spot, at the confluence of the river Kirindi and the Indian ocean, which was reported to be the funeral place of the great Indian poet Kālidāsa. It was covered over with clusters of creepers and flowers and surrounded by numerous cocoanut and arecanut trees. The monks, residing in a monastery called Tiśyārāma, in the neighbourhood, corroborated the report; and the monks of other monasteries in other parts of Ceylon related the same story. *Parūkramabāhucaritra*, a Ceylonese work 500 years old, as also other works, bear testimony to the authenticity of the tradition.

It is said that Kumāradāsa, otherwise known as Kumāradhātusena, a very learned king of Ceylon, as a token of his gratitude to Kālidāsa for the latter's high opinion of the former's epic *Jānakīharanya Kāvya*, invited Kālidāsa to Ceylon, where great patronage and friendship were accorded to him by the Ceylonese king. It is reported further that Kālidāsa met his death in Ceylon under tragic circumstances; and that so indissoluble was the bond of friendship between the two that Kumāradāsa threw himself into the funeral pyre of Kālidāsa. The death of Kumāradāsa took place, according to the Pali chronicle *Mahāvamsa*, in the year 524 A. D.

It is said that once Kumāradāsa, to show his familiarity with the mother-tongue of Kālidāsa, composed a verse in that tongue and asked Kālidāsa to solve the puzzle involved in it. Kumāradāsa's verse was as follows :—

Original Verse.

सियं ताँवरा सियं ताँवरा सियं सेवेनी ।
सियम् पूरा निदि नो लवा उन् सेवेनी ॥

Sanskrit Paraphrase.

शतदल तामग्सं स्वादु तामरसं, (तस्य) स्वार्दं सेवमानः ।
स्त्रीयम् अक्षिं पूरचित्वा निदां न लभमान उद्गृहं सेवते ॥

* This and the following summaries were received too late to be included in the proper sections.

Its purport is :—‘(Just before sunset) a bee, covetous of honey, entered into a lotus and was shut up within its hundred petals. Unable to get a sound sleep, filling his eyes, he sat up, brooding over his plight.’

The following is Kālidāsa’s reply :—

Original Verse.

वन बँवरा मल नौतला रोणट वनी ।
मल देदरा पण गलवा गिय सुखेन ॥

Sanskrit Paraphrase.

वनश्चमरः मालां (पुण्यं) न उत्तोल्य रेणोरथे (यद्या ह्यु इति शब्दं कुर्वन्) प्राविशन् ।
मालायां (पुण्ये) विर्द्धार्णीयां प्राणान् गलयित्वा गतवान् सुखेन ॥

The purport :—‘(Just before sunset) a wild bee wishing to drink honey without destroying flower, entered into the latter. (In the morning) when the flower opened, he, effecting his deliverance from inside the flower, flew away at ease.’

The question now is : ‘In what dialect were the stanzas composed?’ The Ceylonese say that the stanzas are written in the old Singhalese ; the Bengalees think them to have been written in archaic Bengali, while the Maithils hold that the language is old Maithili ; and the Gujaratis, on the other hand, maintain that the language employed must be Gujarāti, on account of the preponderence of nasal sounds in it.

Dr. Vidyabhusana now places this question before the Conference in the hope that the delegates will kindly identify the dialect of the stanzas and discuss the reliability of the date of Kālidāsa’s death.

The Indo-Aryan Style of Architecture. By Y. R. GUPTE.

Definition of Architecture. (Architecture and Archaeology) Ideas conveyed by Architecture. It has two sides. To understand this two-fold function, and its varieties and sub-varieties illustrations are required. Subject-matter of this paper. The results obtained by pioneers. The modifications that are required. Leading characteristics of the Indo-Aryan style. The various forms it assumed, excellence and drawbacks of edifices.

Earliest models of Architecture are found in Babylonia and Egypt. Their relation to India is not known.

Some points for general guidance. Architectural developments depend upon the materials available in a country—wood, stone and clay. Generally wood precedes brick; stone was employed after bricks in India.

Divisions of Architecture:—Hindu Architecture—Its divisions, 1 Indo-Aryan, 2 Dravidian, and 3 Chalukyan. Main differences. The Indo-Aryan style only is dealt with in this paper. In India the style is peculiar. The details were borrowed from time to time from Greece and Persia. But the style is decidedly indigenous. So it is called Indo-Aryan. The provinces in which the typical examples are noticed are known as *Āryāvarta*. The fashion prevails from the Himalayas to the Vindhya, in Maharashtra and in a part of H. E. H. the Nizam's Dominions.

The origin of it is a mystery. The prototype of the Śikhara has defied the attempts of scholars. Mr. Fergusson's hypothesis of Persian influence.

Innovations in India are not suddenly made. This rule applies particularly to religious things.

Propriety in calling a *sikhara* a *vimāna*. Its derivation. Gods are represented as fond of travelling in *vimānas*. Square forms are disadvantageous. The circular shape is better suited. The Puṣpaka *vimāna*. In the 2nd century A. D., the date of the *Rāmāyaṇa* the Śikhara were white. Flatness of roof is a characteristic of the Gupta period. Temples of the late Gupta period have spires.

The plan of an Indo-Aryan temple is a square inside and outside. But addition of slices are made.

It is believed that Orissa possesses temples of the pure type which is astylar. Their general characteristics. Notable examples are those at Bhuvanēśvara and Puri. The Orissa group forms in itself one of the most complete and interesting in all India, for this reason the monuments in Orissa are dealt with first.

Parasurāmēśvara temple at Bhuvanēśvara. It is not magnificent. But the sculptures are exquisite. The ornaments are well-designed. The temple of Mukteśvara, though small is more beautiful. The plan is similar to that of the Paraśurāmēśvara temple. But the beauty lies in the details. The Lingarāja temple at Bhuvanēśvara. It belongs to the 9th century A. D. Its description-Absence of monotony is a characteristic of this monument. There are two fashions in Orissa, one represented by the temple of Paraśurāmēśvara and the other by that of Lingarāja.

Adoption by the Hindus of the Buddhist system of using repetitions of temples as ornament. The extent to which this system is carried is a fair test of the age of Hindu temples.

The early Orissan system was astylar. But it was not a peculiarity of the Indo-Aryan style. Later Orissa examples have pillars. The Black Pagoda at Kanārak. Its date—Its description. The temple of Jagannātha at Puri. Its description. The Mukhalingam temple in the Ganjam District.

The style in Orissa degenerated from the 12th century onwards.

The Kashmir temples form a peculiar group. It is not apparently included in the Indo-Aryan style by Mr. Ferguson and others. The typical example is the temple of Mārtanda. Its description.

Northern and Central India:—Here the temples are smaller as compared to the Orissan and Southern ones. But they have very neat and elegant forms. Models of the style:—
1 The brick temple at Bhitargaon. 2 The sand-stone temple at Deogarh, Jhansi District. Their descriptions and dates. The Gupta architectural characteristics. 3 The Śaiva temple of Śitalerśvara at Candravati in Rajaputana. Its description and date. 4 Two temples of the 11th century in the Gwalior fort. Their descriptions. 5 Temples at Vrindavan near Mathura. Their descriptions. 6 The temple of Visvesvara at Benares. Its date and description. 7 Mirabai's temple at Chitor.

Chandel buildings :—Specimens are to be met with in Bundelkhand. 8 The temple at Phutera on the Jhansi-Nowgong road. Its date. The Śaiva temple at Gaharao (Tahsil Mau, District Jhansi). Its description and date. 9 The temple at Khajuraho.

Gujrat Architecture :—10 The temples in Gujarat are believed to be in the Jain style. But that is the style of a province. 13 The characteristics of the style.

Bengal :—The Bengalis did not adopt any of the above styles in tact. The prevailing one differs from them. Observations on the same. 11 The temple at Kantanagara near Dinajpur. Its date and description.

The Deccan :—The Hemāḍpanti temples. 12 A typical example of another form of the Indo-Aryan style of the 11th and 12th centuries is the temple of Gondēśvara at Sinnar in the Nasik District. Its description. 13 The temple at Ambar-nath near Kalyan in the Thana District. Its description. Some observations on the style called after Hemāḍpant. The places where specimens are to be found. The Kālā Rāma's temple at Nasik exhibits the latest phase of the style. Its description. 15 Naro Shankar's temple at Nasik.

Dharawad and Maharashtra in general :—The Dravidian style has influenced the Indo-Aryan in Maharashtra. The edifices afford scope for comparing the advantages and the disadvantages. 16. A typical monument is the Pāpnāth temple at Paṭṭadakal. Its description.

Edifices of the Sikhs :—They are few. 17 Haramandir at Amritsar. Its history and description. 18 Shrine at Nander. 19 The Gurudvāra at Shahajahanabad (Delhi). Its history and description.

Rock-cut temples :—General observations. 20 The caves at Bādāmi with their dates. 21 The caves at Elura. 22 The Daśāvatāra temple at Elura. 23 The Elephanta Caves. Their date. Some general observations. 24 The Pāñcāle-śvara temple near Poona. Some observations on it.

Two monuments that have come to light since the publication of Mr. Fergusson's, *History of Indian and Eastern*

Architecture. 25 The Masrur monuments. Their description. Their date. 26 The monolithic temple near Thal known as the Eka-Hatiā Temple. Its description.

Kirtistambhas:—An early torana-gateway at Pathari in the Gwalior state. Vadnagara gateways are remarkable for carving.

Palaces:—General observations. Palaces mentioned in ancient works like the *Rāmāyana*. The palace at Taxila excavated by Sir John Marshall. The Mauryan palace at Patna. The palaces in the Gwalior fort. Their descriptions and dates. The palace at Udeipur. Its date and description. The palace at Ambar built by Sawai Jai Singh. The palace of Surajmal at Dig. Its description and observations on its construction.

Town-planning:—It is not dealt with in this paper as another gentleman has promised to enlarge upon the subject.

Houses, Chatris or Cenotaphs:—The Hindus are not accustomed to show much respect for the dead. When the Rajputs and the Marathas came in close contact with the Muhammadans, they began to raise monuments to mark the sites where the deceased had been burnt. The Chatris do not vie with the splendid tombs of the Pathans and the Moghals. Mahāsatis. Rana Sangram Singh's Chatris. Foliated arch was the fashionable form at Delhi and Govardhan. In the 18th century, even the Brahmin Subhedar adopted the suggestion offered by the Muhammadans.

City walls:—Walls at Pāṭaliputra were of wood. Later on mud and stone were freely used. Markaṭ Keśari's stone revetment.

Bridges at Puri and Jājpur.

Tanks:—Their characteristics. Tanks at Chandpur and Dabhai. Rana Sang. Singh's dam. The embankment of Raja Udet Singh constructed to form the lake Barva Sagar.

Wells and Baolis.

Ghāṭs at Benares, Maheśvara, Ujjain and Haradvar. Nahara-ghati and Raja-ghati at Deogarh, Jhansi District.

Viśeṣādvaita. By VIRUPAKSHA WODEYAR.

The principal object of the teaching of the Vedas is to reveal the highest ideal of man's life and to lay down the appropriate means of attaining it, by removing all doubt and ignorance and by finally solving the mystery of life. Numerous doubts haunt our minds regarding this universe and its Maker. And many conflicting attempts have been made to remove all doubts and illumine our minds. And these constitute the rival schools in philosophy, the schools founded by Śaṅkara, Rāmānuja, Mādhaba, Vallabha, Śrīkara and others. I am concerned with Śrīkarācārya's Viśeṣādrūtu philosophy. It has not received the attention it deserves, of our scholars. But to my mind Śrīkarācārya's philosophy possesses the supreme value. It has said the last word in philosophy. It has constructed the most satisfactory system of philosophy, having refuted other systems. It has pointed out the errors lurking in other systems and conclusively established its thesis. It is to be noted that Śrīkarācārya has never failed to incorporate into his own system the truths in the doctrines of other Ācāryas. His is a very comprehensive and liberal view.

I cannot discuss in this summary Śrīkarācārya's refutations of rival theories. *I refer you to my Sanscrit paper.* Nor can I do justice in this summary to the details of Śrīkarācārya's philosophy. I shall only very briefly touch the most important points. My only purpose is to draw your attention to the philosophical doctrines of Śrīkarācārya which have been neglected, even though they merit a close study.

Brahman is He who apportions rewards and punishments to Jivas according to their Karman. He is the light that illumines the gross and the subtle, the sentient and the non-sentient things. He is possessed of truth, knowledge and innumerable other good qualities.

Jiva is that which is fettered by Māyā, burnt up by miseries of three kinds and is a seat of pleasure and pain as a result of *kāma*, *krodha*, produced from its entering into numerous bodies.

Māyā or Śakti is a peculiar characteristic of Paramātman. It is inseparable from Paramātman. It is to Paramāt-

than what the quality of burning is to the fire, what the quality of attracting a piece of iron is to a magnet. It is therefore erroneous to say that Māyā is false.

Though Jivātman and Paramātman are different, still Jivātman can become one with Paramātman just as extremely heated iron becomes one with fire itself. This is called unity of Jiva and Śiva.

Sṛikara says that Brahman is spoken of as Linga in the Vedas, Smṛtis and other great works. Even the Gāyatrī Mantra advises Līngadhāraṇa. Many passages may be cited from Manu and Gautama in support of this Līngadhāraṇa. The Brāhma-Sūtras explain how Līṅga is worshipped in three ways. Linga-worship is not the privilege of any particular caste or creed or sex. (Vide Parameśvarāyama). Sṛikarācārya has no faith in re-birth. Salvation is possible in this very birth if we but wear Linga, worship it and practise meditation &c.

Such ennobling ideas and liberal principles (—universal love and sympathy, equality of rights to both the sexes, removal of the barriers of the caste system—) were taught in very ancient times by Ācārayas like Renuka, Śivadera, Ekorām, Marula Siddha, Agastya and others, who propagated Lingāyatism.

Origin of the Indian Alphabet. By D. R. BHANDARKAR.

The scripts at present indigenous to India have all been traced to only one alphabet viz., the Brāhma Lipi which has therefore been regarded as the real ancient alphabet of India. When therefore we discuss the origin of Indian alphabet, we have in view the origin of this Brāhma Lipi only. The existing theories about the origin of this alphabet are twofold in character, according as they are traced to the indigenous, or to the foreign source. The first of these theories was held by Lassen, E. Thomas, Alexander Cunningham and Dowson. The theory of foreign origin again is held by two distinct classes of scholars, one referring the Indian Alphabet to the Greek, and the other to the Semitic source. The first

of these theories was held by Prinsep, Müller and Senart but as the Brāhmī alphabet is now proved to have originated much earlier than the Aśoka period, this theory is no longer countenanced by any scholar. Two theories, again, have been broached in regard to the Semitic origin of the Indian alphabet, one band of scholars like Deecke and Isaak Taylor holding that it was derived from the southern Semitic script and another band headed by Weber and Bühler, tracing it to the north Semitic. And it is this last theory, namely the north Semitic origin of the Brāhmī Lipi, that is in the ascendent. It is however very doubtful, whether this theory can now be upheld, in the light of the discovery of the prehistoric potteries, made by Mr. G. Yazdani in the Nizam's dominions. These potteries have single alphabetical marks inscribed on them, and similar ones have been noticeable on those found by Bruce Foot and now deposited in the Madras Museum. About 131 marks have been detected, five of which have been found to be identical with the letters of the earliest Brāhmī alphabet. It does not therefore seem unreasonable to suppose that the Brāhmī script was derived from an indigenous Indian alphabet of the pre-historic period. It may be mentioned here that the Cypriot and Phoenician alphabets have similarly been traced to prehistoric origin, because 20 letters of the scripts were found to closely resemble the alphabetic marks painted on pebbles of the Palaeolithic and Neolithic ages discovered by Piette in France. In connection with the pre-historic writing of India, it deserves to be further noted that there are at least two Neoliths in the Indian Museum, Calcutta, which are scratched with letters. One of these which was found in Assam, bears letters corresponding to the pre-historic character of Egypt. The other which comes from about Ranchi in Bihar, contains three letters bearing close correspondence to the Brāhmī characters of the Aśokan period, but reversed in form. The origin of the Indian alphabet is thus transferred from the historic to the pre-historic period. And when letters of the Brāhmī Lipi are found identical, or almost identical with those on the pre-historic antiquities of India, it is absurd to maintain any longer the theory of the semitic or foreign origin of the Indian Alphabet.

Bhartṛhari in Ibn Muqaffa. By G. K. NARIMAN.

The Zoroastrian litterateur Rozbeh, who embraced Islam as Ibn Muqaffa and died in about 757 A. C. is famous as the translator into Arabic of the *Pañcatantra* from its Pahlavi version. He is also the reputed author of *Adabul Saghir* and *Adabul Kabir* dealing with maxims and wisdom in literature. It seems his knowledge of Hindu wisdom was not confined to the *Pañcatantra*. And as he himself could hardly have learnt Sanskrit, it is established that other Sanskrit works besides the original of *Kalila wa Dimna* were accessible to him in Pahlavi. For the passage from 'wa laysa min khillatin' at p. 73 to 'summeya aiyyan' p. 74 in *Adab Saghir* is a free translation of the well known Sloka in Bhartṛhari 'jādyam hrimati ganyate' in the *Nitiśataka*. The passage next following is also a version of the Sloka 'rogi cirapravāsi parānnabhoji,' the last line 'yaj jivitāṁ tan maraṇāṁ yan maraṇāṁ so' sya viśrāmaḥ' being literally represented by 'fal hayato lahu maotun wal maoto lahu rahatun.'

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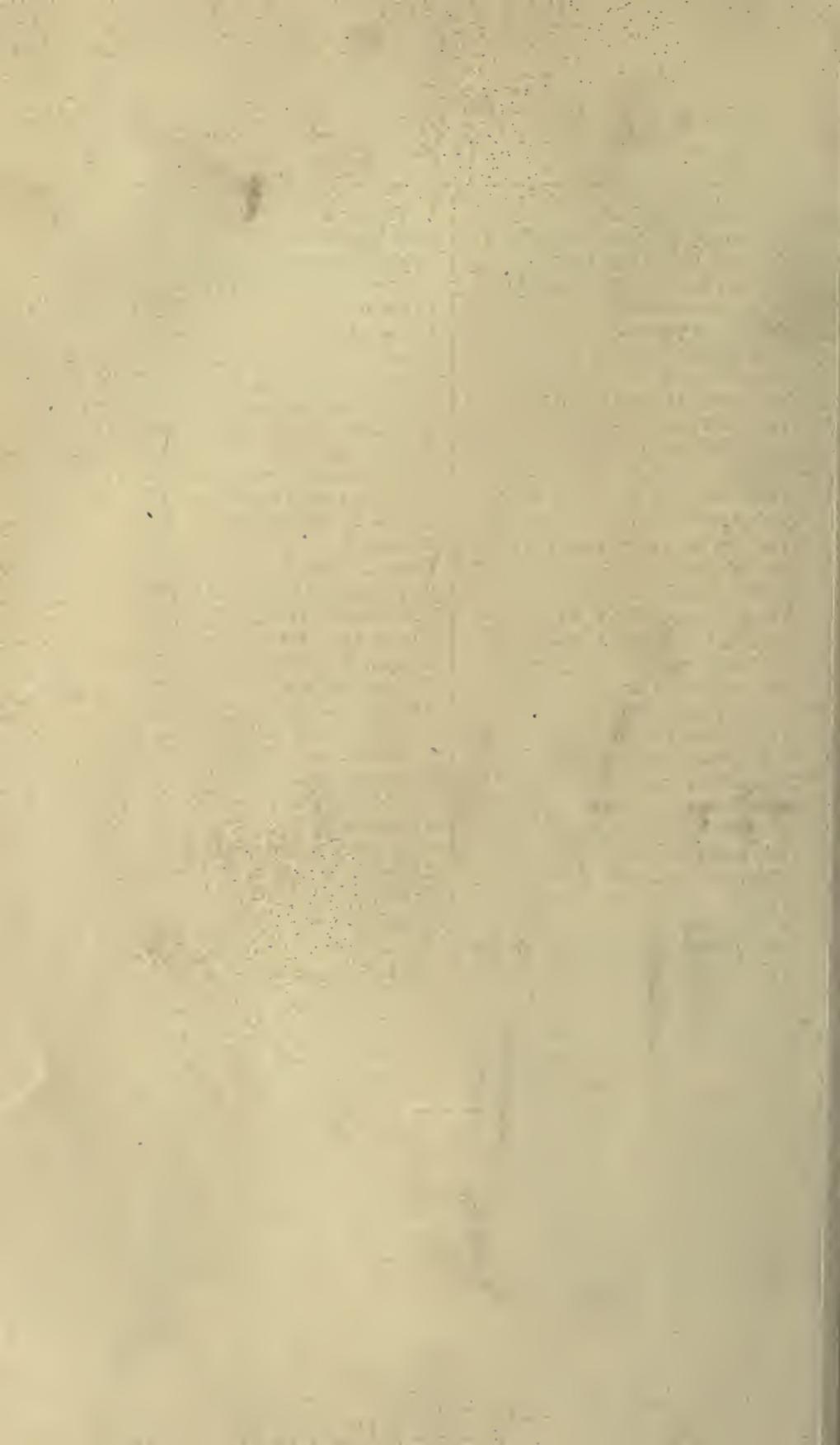
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P R E F A C E

It is with many apologies that this Second Volume of the Proceedings and Transactions of the First Oriental Conference, held at Poona under the auspices of the Bhandarkar Oriental Research Institute in November 1919, is being published. This volume contains those papers which the Selection Committee recommended for being printed in extenso, and for which space could be found. The preceding volume, containing a detailed account of the Conference and a summary of all the papers submitted to the Conference, was published in 1920. The work on this volume was taken up towards the end of that year, the intervening period of time being required for the arrangement of the material and for constant references to the Selection Committee and to the scholars concerned.

A word of sincere apology is due to those scholars, whose papers, though recommended by the committee to be printed (and though to print them would have been a privilege and a service to scholarship) had to be omitted as being beyond the ordinary length, and withal too important to be abridged or printed in selections. In such cases the consideration of funds naturally weighed, with the result that not a few of such papers had to be laid aside, much against the wishes of the managers. The Institute is arranging to print most of these in its own Annals. The same considerations of space and funds are mainly responsible for the absence of the Index to this volume, which, though far advanced in execution, has for the present to be laid aside. It

will, however, be printed through the agency of the Institute at no distant date.

It remains to express the Secretaries' sense of gratefulness to many who have generously helped in the execution of this volume. Foremost among such obligations are those of the Chairmen of the different sections. Dr. A. B. Gajendragadkar, M. A., Ph. D., of the Elphinstone College and Mr. P. K. Gode, M. A. of the Bhandarkar Institute were kind enough to read parts of the work in proof and to help in other ways. It is a pleasure to acknowledge these disinterested labours, as also the courtesy and promptness of Mr. Pendherkar, the Manager of the Tutorial Press.

The work which was thus undertaken nearly three years ago comes now to a happy conclusion. The idea, which the Institute inaugurated has taken firm root, as the successful holding of the Second Session of the Conference in Calcutta shows. There is no doubt at Madras and subsequent places the Conference will enter on a life of gradually widening usefulness.

P. D. GUNE,

R. D. KARMARKAR,

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*Honorary Joint Secretaries,
First Oriental Conference, Poona.*

BHANDARKAR ORIENTAL
RESEARCH INSTITUTE,
POONA CITY,
30th September 1922.

ASURA

BY V. K. RAJWADE

In the *Annals* of the Bhandarkar Oriental Research Institute, I made an attempt recently to determine the meanings of certain words in the *Rgveda* such as *āhanas*, *vihāyas*, *sasni*, *mehanā*, *kṛpā* and *citra*, by collating all the passages in which these words occur in all possible forms and classifying them. I deduced the meanings applicable in almost all cases. I am going to pursue that method in the case of *asura* and hope that the senses I attach will convince you, as they have convinced me.

The word *asura* in all its inflectional and derivative forms occurs about 105 times in the *Rgveda*. In some cases it appears to be generic in sense. Sāyaṇa and most modern scholars derive it from *asu* and Sāyaṇa interprets it as *balavān* i.e. possessed of strength, *prāṇavān* i.e. possessed of life, or *prajñāvān* i.e. possessed of wisdom. *Asura* meaning powerful, full of life, may be used in the case of each and every god, as all of them are full of life and strength. Sometimes Sāyaṇa interprets it as *prāṇadātā* or *baladātā* i.e. one who gives life or strength.

Agni is घृतप्रसर्तो असुरः सुशेषः (5,15,1)—‘one that is pleased with ghee, powerful and full of happiness’; न्युमिः सीदसुरः (7,30,3.)—‘Agni’ the mighty, sat down’; असुरं सुदक्षंमगुना समिदं (7-2-3)—the powerful Agni, possessed of great strength, and kindled by Manu’; सन्त्राजो असुरस्य प्रशस्ति (7-6-1)—‘the praise of the powerful ruler’; प्राप्तये

...असुराय मन्म (मेरे) (5-12-1)—‘let us offer prayer to the powerful Agni.’ In all these cases, *asura* seems to be an honorific epithet that can be safely dispensed with.

But in त्वमेष्टे रुद्रो असुरो महो दिवः (2-1-6)—‘thou art the powerful Rudra of the great heaven,’ or ‘thou art Rudra, being more powerful than the great Dyau;’ तविष्यते असुरः (10-11-6)—‘the mighty Agni will grow mightier still’, the epithet seems necessary and significant.

As Rudra and the Maruts are mighty forces, the epithet in their case is quite appropriate and necessary. (मरुतो) रुद्रस्य मर्या असुराः (1-64-2)—(the Maruts) ‘the mighty warriors of Rudra.’

But sometimes it may be honorific even in their case as in रुद्रं नमोभिर्देवमसुरं दुवस्य (5-42-11)—‘serve the mighty god Rudra with salutations;’ रुद्रस्य...असुरस्य वेधसः (8-20-17)—‘of the mighty Rudra, the god of action.’ Parjanya also is *asura* as in अर्वाङ्गेतेन स्तनयित्वुनेह्यपो निर्विचक्षुरः पिता नः (5-83-6)—‘O powerful father of us (all), come down dropping rain with this thunder.’ Here *asura* may be significant.

Sūrya and Savitṛ are also called *asura* but in an honorific sense as गर्भरवेषा असुरः सुनीथः (1-35-7)—‘Sūrya, mighty, of grave motion, and entitled to good praise’; हिरण्यहस्तो असुरः सुनीथः (1-35-10); त्यं चिंचमसमसुरस्य भक्षणं (1-100-3)—‘that bowl used for eating by the mighty Savitṛ’; सवितुर्वायै महद्वृणीमहे असुरस्य प्रचेतसः (4-53-1); ‘द्विधा सूतवोऽसुरं स्वविद्दमास्योपयन्त (10-56-6)—‘the sons stationed the mighty sun, intimate with heaven, in two ways’ (i. e. for rising and setting); प्रति’ प्रयाणमसुरस्य विद्वान्तसूक्तौदेवं सवितारं दुवस्य (5-49-2)—‘knowing the departure of the mighty Savitṛ, praise or serve that god with hymns.’

Soma, who is identified with each and all gods, is

naturally *asura* as in त्रीन्त्स मूर्धो असुरथक आरम्भे (9-73-1)—‘the powerful Soma made three heads at the beginning (i.e. created the three worlds); सोमो’ मीढ़ौं असुरो वेद भूमनः (9-74-7)—‘the powerful Soma, raining, knew plenty’; शुकां वयन्त्यसुराय निर्णिङ्ग (9-99-1)—‘they weave a white filter for the powerful Soma.’ In the case of Soma the epithet is purely honorific.

Dyau also is *asura* इन्द्रोय हि धौरसुरो अनन्त्रत (1-131-1)—even the powerful Dyau bowed to Indra’; उत वा दिवो असुराय मन्म प्र भरवं (5-41-3)—‘offer prayers to the powerful Dyau’; न नि मिंपति सुरणां दिवेदिवे यदसुरस्य जठरादजायत (3-29-14)—‘ever since he was born from the womb of the powerful Dyau, the beautiful son has never winked from day to day i.e. on any day’; शंसामि पित्रे असुराय शेवं (10-124-3)—‘I recite pleasing prayers to the powerful father, the Dyau.’ Even the powerful Dyau bowed to Indra’; here the epithet is significant and appropriate. In the other quotations it is only honorific.

Mitra and Varuṇa together are called *asura* in the usual generic sense. प्र सा क्षितिरसुर या महि प्रिया (1-151-4)—‘that are exceedingly dear to you, O powerful ones’; इमां वा मित्रावरुणा सुवृक्षिः...कृष्णे असुराः... (7-36-2)—‘O powerful Mitra and Varuṇa, I fashion this well-cut hymn for you;’ मुहान्ता मित्रावरुणा सुमात्रा देवावसुरा (8-25-4)—‘Mitra and Varuṇa are great, powerful ruling gods.’ But the epithet is assertive in ता हि देवानामसुरा (7-65-2)—‘they are the strongest of the gods.’

If any one deserves to be called *asura*, it is Indra. या च का च बलकृतिरिन्द्रकर्मेव तत् (*Nirukta*, 7-10) ‘wherever there is a deed of physical strength, it must be Indra’s,’ says Yāska. His protection is solicited because he is powerful. पार्थसुर त्वमस्मान् (1-174-1); प्र पस्त्यमसुर हर्यतं गोराविष्टार्थं

हरये सूर्योऽय (10-96-11)—‘O powerful Indra, reveal the pleasant abode of the cow i. e. the waters’; महत्तद्वाणो असुरस्य नामा विश्वरूपो अमृतानि तस्यौ (3-38-4)—‘great is the name of the powerful showerer; of many forms, he presides over the immortal waters’; तसु त्वा नूनमेषुर प्रचेतसं राधोऽभागमिवेमहे (8-90-6)—‘O powerful, wise one, we beg of thee that protection as though it were part of our food.’ बृहच्छ्रवा असुरो वर्हणा कृतः पुरो... (1-54-3)—‘the powerful one of wide fame was placed in front because of his valorous deeds. But in his case too the epithet is sometimes honorific.

It is not only individual gods that are *asura*; gods in general are sometimes called *asura*. यद्वंभिपित्वे असुरा कृतं यते छदियेम वि दाशुषेऽ (8-27-20)—‘or when we shall secure a seat at the general symposium to the sacrificer going to heaven, O powerful ones’; परो दिवा पर एना पृथिव्या परो देवेभिरसुरैर्यदस्ति (10-82-5)—‘that which is superior to heaven and earth and even the powerful gods’; अयं सोमो असुरैर्नो विहव्यः (1-108-6)—‘this Soma of ours is worth being demanded by the powerful gods.’

Asura thus appears to be a generic epithet of the gods, though in a few cases it appropriately means ‘powerful, strong.’ Why should the gods be called *asura* in so many places in the *Rgveda*, though in the same Veda and in subsequent literature the word came to be applied to the enemies of the gods? *Asura* seems to show some desirable good quality. We have seen that in some cases, as in those of Rudra, Maruts, Indra, Mitra and Varuṇa, the meaning ‘powerful’ is exceedingly applicable. In the case of Varuṇa it seems most so. वरुण..... असुर प्रचेता राजनेनासि शिथथः कृतानि’ (1-24-14)—‘O wise and powerful king Varuṇa, loosen the (bonds of) sins committed’ (by us).’ Varuṇa

is a mighty power, that oversees, detects and punishes sin. The other gods are physically powerful. Varuṇa is morally so. मा नों वैर्यवैरण ये तं इष्टावेनः कृष्णन्तमसुर श्रीणन्ति (2-28-7)---'do not strike us with these destructive weapons, O powerful Varuṇa, which wound one who commits sin in thy sacrifice.' He is a mighty ruler, universal lord—तं विश्वेषां वरुणासि राजा ये च देवा अंसुरा ये च मर्ता: (2-27-10). 'He held up the heavens on high, spread out the earth, or measured the width of the earth, and as Universal Ruler, presided over all the worlds; all these are the acts of Varuṇa—अस्तं भ्रात्यामसुरो विश्ववेदा अभिमीत वरिमाणं पृथिव्याः । आसां दद्विश्वा भुवनानि सप्राङ्गेत्तानि वरुणस्य व्रतानि' (8-42-1). असावन्यो अंसुर सूयत यौस्त्वं विश्वेषां वरुणासि राजा । मूर्धा रथस्य चाकवेतावैतनसान्तकधृक् (10-132-4). Mitra and Varuṇa are contrasted here. 'He (Mitra) is quite different (i.e. inferior to you); (Him) Dyau begot; (but) thou, Oh powerful Varuṇa, art the king of all. He (Mitra) comes as the head of the wheel (the sun). Thou art the hater of even death for sin, though ever so slight.'

All these Ṛks insist on the moral and punitive side of Varuṇa's character and in all he is addressed as *asura*. He seems to have a prior or foremost claim to that epithet but for the following Ṛks.

(मित्रावरुण) यां वर्षयथो अंसुरस्य मायवा (5-63-3)—'You cause heaven to rain down by (using) the thaumaturgy of Asura. धर्मेणा मित्रावरुणा विपश्चिता व्रता रक्षेथे अंसुरस्य मायवा (5-63-7) —'Mitra and Varuṇa, wise as you are, you righteously maintain laws by using the power of Asura.' इमाम् वांसुरस्य श्रुतस्य मही मायां वरुणस्य प्र वोचम् (5-85-5)—'I have loudly proclaimed this great power or skill of Varuṇa, the well-known Āsura.' Varuṇa is Āsura, i.e. a son of Asura and plies Asura's power or skill. He might be the (eldest) son of Asura and was not primarily Asura him-

self. Mitra and Varuṇa and all the other gods had to do the bidding of Asura. They derived their power or skill from him.

Asura then at one time was supreme master, an over-lord, whose decrees were binding on all. Who was this Asura? The other gods or some of them at least are called *asurasya vīrāḥ*. इमे भोजा अङ्गिरसो विरुपा दिवस्पुत्रासो असुरस्य वीराः। विश्वामित्राय ददेतो मधानि सहस्रसावे प्रतिरन्त आयुः(3-53-7)—'These Bhojas and Aṅgirasas of various forms, sons of Dyau and warriors of Asura, giving riches to Viśvāmitra in the sahasrasāva sacrifice, prolong life.' These Bhojas or Aṅgirasas seem to be the Maruts or some other gods, though Sāyaṇa takes them to be kings. त्रिरूपमा दूषशो रोचनानि त्रयो राजन्त्यसुरस्य वीराः(3-56-8)—'three sons of Asura rule over three best and imperishable heavenly worlds' (or worlds of light). Sāyaṇa understands by them Agni, Vāyu, and Sūrya and does not explain the three *Rocanas*. महस्पुत्रासो असुरस्य वीरा दिवो धर्तारं उर्बिया परिष्वयन् (10-10-2) —'the sons of Mahas, the heroes of Asura and the supporters of heavens, keep an all-round watch far and wide.' दिवस्पुत्रासो असुरस्य वीराः (3-53-7) and महस्पुत्रासो असुरस्य वीराः in the last quotation, show the identity of Dyau, Mahas and Asura. The Dyau is the Zeus of the Greeks, in whose mythology all the gods, or at least some, are his sons. May not Mahas and Asura be the Mazda and Ahura of Zoroastrianism? European scholars connect Mazda with the Vedic Medhas on the ground that Ahura was the wisest. But this ground is not convincing. In the article on Ormadz in the *Encyclopædia of Religion and Ethics* (vol. ix, p. 568, Col. 2) the writer says that in a list of Assyrian gods published by Vincent Scheil, there occurs the name of Assar Mazaash, which according to him, is Ahura Mazda. I think it

corresponds exactly to Asura Mahas. German orientalists hold the view that the sun-god, moon-good and seven Ādityas were not originally Aryan, but that they were borrowed from Chaldea to which India owes most of her astrology. Assar Mazaash might also have been borrowed from Chaldea and sanskritised as Asura Mahas. Like the Romans in the days of the Empire, the Indian Aryans did not hesitate to adopt foreign gods. They had not the exclusive spirit of the Semitic people.

The two names of Asura and Mahas do not occur in a compound form in the *Rgveda* but once or twice they are used in juxtaposition as in महस्युत्रासो असुरस्य वीरा: (10-10-2). The compound name Ahura-Mazda does not occur in the oldest portions of the Avesta. It is only Mazdāh or Mazdāh Ahura. Ahura was only an epithet and applicable to other gods like Mithra and Apām Napāt. It was also prefixed to the names of kings. In the case of Mazdāh, however, it came to be persistently and pre-eminently used, so that ultimately it was considered as exclusively his property. In the *Rgveda* the two names or rather the three names Asura, Mahas and Dyau are interchangeable and denote the supreme deity. Dyau is often a masculine word as शौरसुरः (1-131-1) अर्चा दिवे वृहते (1-54-3), नमो दिवे वृहते (5-47-7). The absence of the compound name may be used as an argument to prove that the religion of the *Rgveda* was earlier than the Chaldean and Mazdean religions and that the borrowing was rather the other way. But this is by the way. Another name that may be considered as interchangeable with these is Amṛtasya, for we have such expressions as शृण्वन्तु विश्वे अमृतस्य पुत्राः आ ये धार्मानि दिव्यानि तस्यः (10-13-1) and उपं नः सूनवो गिरः शृण्वन्त्वमृतस्य गे-

(6-52-9). Asura also seems to have been used in the sense of 'son' as in असुरो महो दिवः (2-1-6). The gods are *putrāḥ*, *vīrāḥ*, or *sūnavaḥ* of Asura, Mahas, Dyaus or Amṛta. In Vedic literature *vīra* often means *putra* अथा स वीरैदशभिर्विं यूया यो मा मोर्धं यातुधानेत्याह (7-104-15)—'may he be deprived of his ten sons, who for no reason calls me a sorcerer,' says Vaśiṣṭha.

If Asura was the supreme deity once of the Indian Aryans as I think he was, his sons would be naturally called Asura in name and spirit both. Asura then could be a patronymic, though in some cases the epithet may be significant. In the same way, Amṛta also came to be a patronymic. Agni is called Amṛta (1-44-5), so Rudra (1-114-6), so Indra (5-31-13), so Soma (8-48-3). In Avesta also Agni is called the son of Mazdāh-āthro *asurahe mazdaō puthra* 'Oh Atar (Agni), thou son of Mazdāh Ahur.'

The name Asura, then, had for a long time no evil meaning attached to it, so that it was often applied to kings and even men. One Tryaruna is said to be more powerful than even Indra. (ऋणः) असुरो मघोनः (5-27-1); शतं कक्षीवाँ असुरस्य गोनी (1-126-2) -- 'Kakṣīvān received from the powerful Bhāvya a hundred cows;' प्र रामे वोचमसुरे' (10-93-14) — 'I have sung praises in behalf of Rāma'; अस्मे वारो मरुतः शुभ्यस्तु जनानां यो असुरो विधतो (7-56-24) — 'let us have, O Maruts, a strong, powerful son, an upholder of men.' That Asura means powerful, strong is clear from हवं एषामसुरो नक्षत यां (10-74-2) — 'the powerful call (neighing) of these (horses) pervades the sky.' Like Asura, the abstract noun Asuratva too showed something praiseworthy. पृथुं योनिमसुरत्वा संसाद (10-99-2) — 'Indra occupied a broad seat on account of his

strength.^१ यदुष्य औच्छः प्रथमा विभानामजनयो येने पुष्टस्य पुष्टम्। यसे जामित्वमवरं परत्था महन्महत्या अंमुरत्वमेकं (10-55-4)—'that thou rokest, O dawn, first of (all) lights, that thou begottest the fattest of all the fat lights (the sun), that though so exalted, thou shouldst maintain relations with the lower world, all this is the unique and great thaumaturgy of thee, the great one.' महदेवानाममुरत्वमेकं forms the refrain of a hymn consisting of 22 řks (3-55). The things praised are the rise of the dawn, sunrise, Agni's parentage, his impregnating of the herbs, his leadership in sacrifice, conflagrations, Agni's various forms as he appears in the three regions, the two sisters—the black and the white, the hidden and the open (night and day), the two cows, the mother and daughter, the one even and the other awry (earth and heaven). All these are the thaumaturgy, the miracles wrought by the gods. The dawn, the sunrise, night and day, and heaven and earth, were miracles to early man.

The word Asurya derived from Asura is sometimes used as an adjective but very often as a noun. (आदित्यासः) दीर्घाधियो रक्षमाणा असुर्ये (2-27-4)—'the Ādityas of far-reaching intellect, preserving their power.' ईशानादस्य भुवनस्य भूरेन वा उ योपदुद्रादसुर्ये (2-33-9)—'never has power departed from Rudra, ruling over this large universe.' अन्यदन्यदसुर्ये वसाना नि मायिनो ममिरे रूपमस्मिन् (3-38-7)—'the thaumaturges, each one invested with his own peculiar might, created beauty in him (Indra).' त्वे असुर्ये मारहत् (5-10-2)—'power mounted thee' (said of Agni). ता हि क्षत्रमविहृतं सम्यग्मुर्ये माशाते (5-66-2)—'They (Mitra and Varuṇa) possess unassailable strength, excellent power.' तुभ्यमविन्द्र सत्रासुर्ये देवेभिर्धायि विश्वं (6-20-2)—'All power was bestowed on thee by gods, O Indra, for ever.' अथा मन्ये बृहदसुर्यमस्य यानि दापार-

नकिरा मिनाति (6-30-2)—‘I consider his power to be great, for none injures what he upholds.’ सत्रा मदासृष्टवं विश्वजन्याः सत्रा रायोऽध ये पार्थिवासः। सत्रा वाजानामभवो विभक्ता येवेषु धारयथा असुर्ये’ (6-36-1)—‘As (alone) among the gods thou holdest power, thy intoxication has proved beneficial to all, as also all earthly riches, and thou becomest the distributor of food.’ सोमासूदा धारयेथामसुर्ये (6-74-1), त्वे असुर्यैवसंवो न्यृप्वन् (7-5-6), ययोरसुर्यैमक्षितं (7-65-1), अपां नपांदसुर्यस्य महा विश्वान्यर्यो भुवना जजान (2-35-2), अहं राजा वरुणो महां तान्यंसुर्याणि प्रथमा धारयन्त (4-42-2), चत्वारिं ते असुर्याणि नामादाभ्यानि महिपस्यं सान्त (10-54-4), असुर्यात्पासि धर्मणा 1-134-5). In all these ऋक्स Asurya denotes power. या धारयन्त देवाः सुशक्ता दक्षंपितरा। असुर्यैय प्रमहसा (7-66-2), ता माता विश्वेदसासुर्यैय प्रमहसा। मही जजानादितिर्क्तावरी (8-25-3); in these two ऋक्स Mitra and Varuna are said to have been created by the Gods or Aditi for Asurya, i. e. great exploits or exhibition of strength.

As an adjective Asurya occurs five times. देवाधिते असुर्यैय पूर्वेऽनु क्षत्राय ममिरे सहांसि (7-21-7)—‘even the ancient gods counted their strengths as coming in rear of thy Asura-like strength.’ Here Asuryāya qualifies Kṣatrāya. के ते वाजायासुर्यैय हिन्वरे के...पौस्ये (10-50-3)—‘who were sent for thy Asura-like wars, who for heroism?’ (सरस्वती) असुर्या नदीनां (7-96-1)—‘Sarasvatī the mightiest of the rivers.’ जोपयदीमसुर्या...रोदसी नृमणाः (1-167-5)—‘the mighty Rodasī fond of heroes served them (the Maruts); भद्रा वो रातिः पृणतो न दक्षिणा पृथुज्ञर्यै असुर्यैव जज्जती (1-168-7)—‘Auspicious is your gift, of Maruts, like the largesse of a sacrificer who wishes to please the gods; it has great speed like a resounding weapon (javelin) wielded by Asuras.’

Indra, besides being called Asura, is three times called Asurya. शतं वा यदसुर्यै प्रति त्वा सुमित्र इत्यास्तौत् (10-105-11)—

when Sumitra praised thee a hundred ways thus, O son of Asura ; ' न ते गिरो अपि मृष्ये तुरस्य न सुषुतिमेसुर्यस्य विद्वान् (7-22-5)—'knowing (how to praise), I shall never neglect or forget the praises of thee who art so quick and powerful.' शंसांत्युक्थमुशनेव वेधाश्चिकितुवेऽसुर्यांय मन्म (4-16-2)—'the poet like Uśanas utters prayer to thee, who art powerful and conscious (of every thing).' Asurya may in all these cases mean powerful or son of Asura.

Another derivative besides Asuratva and Asurya is Āsura. We have seen how in a certain quotation Varuṇa is called Āsura. तनुनपादुच्यते गर्भ आमुरो नराशांसा' भवति यद्विजायते (3-29-11)—'the Asura-foetus is called Tanūnapāt; when born, it is called Narāśaṁsa'. Asura may be derived from *tasyāpatyam* (P 4-1-92) or *sivādibhyon* (P 4-1-112). Varuṇa, in that case, would be a son of Asura. *Garbha āsurah*, by sūtra *tasyedam* (P 4-3-120) 'the foetus belonging to Asura.' Or as Agni is the son of Asura, he may be called Asura by *tasyāpatyam*.... Asura lays the foetus in the womb and hence Agni is called Tanūnapāt—one who lies in the body (of waters.)

Asurya however is a word difficult to account for by Pāṇini's rules. Āsurasya *svam* is Pāṇini's sūtra (4-4-123) for deriving Asurya. *Svamajñatidhanākhyāyām* (P 1-1-35) shows that *sva* has many senses. Does *sva* in Asurasya *svam* mean wealth or has it any other meaning? स्वो ज्ञातावात्मनि स्वं त्रिष्वात्मीये स्वो द्वियां धने (*Amara* 3-3-210). *Sva* according to *Amara* means relatives, soul, one's own and wealth. But in the case of Asurya as used in the *Rgveda*, none of these senses is suitable. Asurya in most cases means power ; when adjectively used, it should mean either powerful or a son of Asura. *Swam* may have had the sense of 'power' in Pāṇini's days and Asurya may be derived by the sūtra *asurasya*

svam. But what about Asurya when it means powerful or a son of Asura? How does Pāṇini derive it?

The form Āsura meaning offspring of Asura may be derived as we have said above by *tasyāpatyam*. But for the feminine form Āsuri, Pāṇini has *Māyāyāman* (4-4-24) which means that the word Asura takes aṇ, it becomes Āsuri and means Māyā,—miracle-working power. But the form Āsuri does not occur in the *Rgveda* even once. In the *Taittiriya Samhitā* (4-1-9) we have आसुरी माया स्वधयो कृतासिं. The Ukhā (an earthen receptacle for a certain sacrificial fire) is called Āsurī Māyā i.e. a miracle wrought by Asura. But I have not met with Āsuri used by itself and meaning Māyā.

So far we have had instances of the use of Asura in a good sense. But at some unknown and unascertainable period an evil sense came to be attached to that word. Indra is called *asurahā* (10-170-2) and *asuraghna* (6-22-4); Asura, Amitra, Vṛtra, Sapatna and Dasyu are placed in the same category, and Indra is addressed as their killer (10-170-2). Agni too is called *asuraghna* (7-13-1). द्वळहानि पित्रोरसुरस्य मायिन इन्द्रो व्यास्यत् (10-138-3)—‘Indra scattered or destroyed the strongholds of Asura who was a tactician and had extended his power.’ अनायुधासो असुरा अदेवाश्चकेण तां अपं वप कद्जीपिन् (8-96-9)—‘the Asuras deny the gods and are without weapons; root them out, O Indra, fond of Soma, with the disc.’ निर्माया उ त्ये असुरा अभूवन् (10-124-5)—‘the Asuras have lost their skill,’ says a king. येनासुरौ अभि देवा असाम (10-53-4)—‘whereby we the gods, may overcome the Asuras’; हत्वायं देवा असुरान्यदायन्देवा देवत्वमंभिरक्षमाणाः (10-157-4)—‘when the gods came back killing the Asuras and thus preserving their godhood,’ या इन्द्र भुज आभरः स्वर्वा॒ असुरेभ्यः। स्तोतारमिन्मं घवनस्य वर्धय ये च

त्वे वृक्षवैदेषः (8-97-1) — 'prosper thy devotee, O Indra, with that wealth, which thou, possessed of light, extortedst from the Asuras.' यथां देवा असुरेषु श्रद्धासुग्रेषु चक्किरे (10-151-3) — 'as the gods reposed trust in the Asuras, though so fierce.' The inference, of course, is that the Asuras betrayed that trust. The gods who were Asuras themselves now glory in killing them, as the latter deny gods. They have lost their industrial and military skill and have no weapons. It is considered righteous to rob them of their wealth. They are considered dishonest and unfair in their dealings. Their very complexion becomes hateful. असुर्यु वर्णं नि रिणीते (9-71-2) — 'Soma loses (in the process of extraction of its juice) its Asura-like colour.'

Indra, himself a mighty Asura and Asurya, is solicited to strike *asurasya vīrān* with his burning weapons as with a stone from a sling. वृहस्पते तपुपाश्रेव विध्य वृक्षद्वरसो असुरस्य वीरान् (2-30-4); शतं वर्चिनः सहस्रं च साकं हयो अंप्रत्य-मुरस्य वीरान् (7-99-5) — 'You two, (Oh Indra and Viṣṇu), kill by hundreds and thousands, the sons of Asura at one and the same time, so that they should never make head again.'

Of all gods Indra is credited with the greatest slaughter, the others being mere accessories. Indra, a deva, is considered an evil genius by Zoroastrianism and is one among the miscellany of evil genii. He fills there quite a subordinate place. I would take Aingra Mainyu to be Indra's prototype, as *Manyu* is a frequent epithet of Indra. Aingra Mainyu is the adversary of Ahura Mazda. Indra, being called father of lies, avenges the insult by becoming Asuraghna. The two religions, Zoroastrianism and Ṛgvedism, came to loggerheads at some period of the world's history and took delight in reviling each other's gods. Indra, who

was an Asuravīra himself, supplanted all the previous supremacies and became supreme deity himself. He was an Asuraghna in this sense and was therefore morally and spiritually degraded into Aingra Mainyu. The name Asura became a stinkard in post-R̥gvedic literature. In the *R̥gveda* the Asuras are the equals of the gods and are never associated with Rakṣas and Yātudhāna, who are considered as quite despicable and detestable. Kill, kill, kill is the constant cry of the R̥sis with regard to Rakṣas, while no charge is considered so degrading as that of being named a sorcerer.

In the *Aitareya Brāhmaṇa*, the Devas and Asuras are called samāvadviryāḥ i. e. 'of equal might' only once. In certain places they are associated with the Rākṣasas and all sorts of tactics had to be employed to prevent their interference with the sacrifice. Their religious formulas were counteracted by secret mantras and rites of the opposite character. The Asuras employed the *Ukthas* (*Ugdu* in Avesta means holy word or prayer) which the Devas counteract by certain Sāmans (*Ait. Brāh.* 15-5 and 28-6). The *Maitrāvaraṇa Uktha* is said to be a speciality of the Asuras. In the same way, they nonplussed them in their Gāthās by singing Indragāthās (*ibid.* 30-6). Modern Zoroastrians do not know what these *Ukthas* are, though they have the word *ugdha*. The long-tongued beastly bitch licked the morning Soma-juice ; she was evidently deputed by the Asuras (*ibid.* 8-4). Svarbhānu or Rāhu, who strikes the sun with darkness, is Āsura, a whelp of Asura (5-45-5). Prayers absent-mindedly uttered are called *asurya* (*ibid.* 6-5). Violations of sacrificial rules are also considered as rules prevailing among Asuras. Day belongs to Gods, night to Asuras (*ibid.* 16-5) In the *Maitrāyaṇī Saṃhitā* (3-6-5) *asurya* is altered into *asūrya* to show that the Asuras

are the children of night. At milking they used an iron-vessel ; consequently they milked Surā *i. e.* liquor, instead of milk (*ibid.* 4-2-1). While gods addressed the cow as *Kāmye*, men by *śravye* and the manes by *Ilānde*, the Asuras called her by an unnamable name (*ibid.*) Men see things by day-light with the eyes of gods, by moon-light with those of Pitṛs, in the dark with human eyes, and near fire with those of Asuras. The Asuras thus are intimately associated with fire and shall we say with Surā ?

Very curious derivations are given of the word Asura. Says the *Maitrāyaṇī Samhitā* (4-2-1), 'Prajāpati, sick of loneliness, wanted to create. So he became pregnant. He became so exhausted with the burden that he turned almost black and only the breath of life remained in him. It was from this breath (*asu*) that he created Asuras, hence the name. It was daytime (*divā*) when he created Gods, hence the name Devas.' The *Nirukta* (3-8) gives a Brāhmaṇa quotation which can not be identified, thus :—सोर्देवानसृजत तत्सुराणां सुरत्वमसोरसुरानसृजत तदसुराणामसुरत्वम्—'he created gods from an excellent part, so the name Sura ; and the Asuras from a vile part, hence the name Asura.' The *Nirukta* has other flights of imagination. *Asuratāḥ* (*sthaneṣu*)—not pleased with any locality long ; they are flighty in character. Or they were driven out (*astāḥ sthānebhyaḥ*) from all possible places ; or they possessed life (*Asu*). By the way, the name Sura does not occur even once in the *R̥gveda*. It is only in the above untraced quotation that I have come across the name. It seems to be an invention and Asura seems to have been supposed a negation of Sura. Such is the religious and literary spirit of perversion.

The Devas and Asuras must do things always in

contrary ways, as we have said above. Says the *Śatapatha Brāhmaṇa* (13-8-2-1)—the gods and Asuras, both sons of Prajāpati struggled for supremacy in this world and the gods succeeded in ousting their rival cousins. The gods have open, unenclosed cemeteries, while the Asuras have enclosed ones. The latter must hide the corpse in a tub or urn (Camū) or a similar receptacle'.

In the *Taittirīya Brāhmaṇa* (1-5-6) we have their manner of shaving. The Asuras began with the hair on their head, then came down to the face and lastly to the arm-pits. By following this downward course, they made their way to hell. But the gods began with the arm-pits, rose to the face and lastly to the head. They necessarily rose to heaven. I do not know if this was the custom of shaving in the days of Zoroaster.

In the *Taittirīya Saṃhitā* the degradation is complete. The Devas, men and Pitṛs are ranged on one side ; Asuras, Rakṣas, and Piśācas on the other (2-4-1). In comparing Brāhmaṇas with Sūdras, the *Taittirīya Brāhmaṇa* (1-2-6) says, 'the Brāhmaṇa is divine in caste, the Śūdra is *asurya*.' In the *Atharvaveda* the degradation reaches its low-water mark. Āsurī is the name for mustard (*i.e.* 1-24-6) and was used for curing certain diseases. Certain magic charms are called Āsurī there (*ibid* 8-5-4). Bad dreams are born in Asurayoni (*ibid* 19-56-1).

The word *Manyu* which in Avesta means 'spiritual', 'invisible', means 'rage' or 'fierce' in *Rgveda*. So Dasyu, in Avesta Daiñhu, means a country or its people ; in *Rgveda* it means 'inimical people,' enemies of the gods. Gāthā, which in Avesta is the highest, most exalted human utterance, is in the

Kāthakasamhitā disparaged thus:—अनृतं नाराशंसीः । यो गाथा नाराशंसीभ्यां सनोति तस्य न गृह्णं... । अनृतं हि गाथो अनृतं नाराशंसीः न गाथाभिः प्रकुर्वात्—(*ibid* 14-5)—one should not perform any sacrificial rite by (reciting) Gāthās.' न गाथाभिः प्रकुर्वात् one should not perform any sacrificial rite by (reciting) Gāthās. I have noted the quotation somewhere, but have not been able to find it. Śrauṣa is an Avestan deity, almost the right-hand of Mazda who reveals his religion to him and through him to mankind. He fightsthe demons and drives them off by the recital of certain hymns. In the Indian ritual Śrauṣat̄ is simply a cry uttered by a Indian priest, when an oblation is offered. It is intended to draw attention. In the Brāhmaṇas it is the Asuras that interfere with sacrifice and make it ineffective. But it is curious that in the *Maitrāyaṇī Samhitā* (1-4-3)and in the *Taittiriya Samhitā* (3-5-4) we have ये देवा यज्ञहनः and ये देवा यज्ञमुः अमिस्तेभ्यो न रक्षतु । The Aryan gods are beneficent powers. How can they destroy the sacrifice or steal it? Is this an interpolation from Zoroastrianism, or a reminiscence of the times when the Aryans lived in the neighbourhood of the Zoroastrians?

I have not dwelt on all the struggles between the Devas and Asuras, which form such a large part of the Brāhmaṇas. They would require an essay by themselves and perhaps would give very useful information.

As far as the present treatment goes, I think the following conclusions may be drawn :—

1. Asura at one time was the supreme deity of many nations—at least of the Vedic Aryans, Chaldeans and Zoroastrians.
2. His other names were, perhaps, Dyau, Mahas and Amṛta.
3. The question as to who borrowed from whom can never be answered. There is such a close resemblance between Asura Mahas and Assar

Mazaash and Ahur Mazda, that the three nations must have been neighbours.

4. In the Avesta, Āthro or fire is called the son of Ahura and certain female deities his daughters. In the R̄gveda almost all the gods are the sons of Asura. Hence Asura came to be a patronymic and had a generic sense. In some cases the epithet was significant, as for instance in the case of Indra, Varuṇa and Mitra. The *Encyclopædia of Religion and Ethics* is wrong in saying, that Asura means God. It is an adjective and an epithet of gods and means powerful. It is used as a comparative and superlative.
5. Varuṇa was not the supreme Asura in the *R̄gveda* as he is called Āsura and Asura-putra. The writer on the article Ormazd thinks that Varuṇa was the Vedic prototype of Ahura on account of the moral and intellectual resemblance between them. Pracetas is however used equally in the case of Indra (8-90-6) Bṛhaspati (2-23-2), and Savitṛ (4-53-1). Asura employed all the gods including Varuṇa to supervise human affairs and gave special powers to Varuṇa as the latter's moral and punitive nature appears emphasized in so many places.
6. Asura, Asuratva and Asurya had for a long time a desirable connotation. As kings like Haoshravah were called Ahura, so were Indian kings. Asuratva and Asurya meant thaumaturgy, the power of working miracles.
7. There is an overwhelming majority of instances in which the word Asura is used in a

good sense, the bad instances being in a minority of about 15 i.e. about $\frac{1}{7}$ of the whole (105). This shows that the cleavage between the Rgvedic religion and Zoroastrianism happened towards the end of the Rgvedic period. The enmity became bitter and bitterer in post-Rgvedic times. There was as it were a partition of deities and it came to be the special duty of the priestly class to exalt the deities of its own adoption and vilify those of the enemies. Words like Manyu, Gāthā, Dasyu, Kavi were given a fair or foul meaning according to the prejudices and prepossessions. Aśa which occurs only once in the *Rgveda* (1-173-4) and that too as an adjective in the comparative degree, is given an unrivalled prominence in Zoroastrianism. Asura and Deva, once denoting all that is spiritually good and divine, were construed by the opposite camps into monsters of the vilest characters. No abuse was too bad. The two races adopted contrary customs in burial, shaving, and even in marriage, if we interpret Khetukdash according to European savants, the Indian Aryans insisting on marriage out of family-relations, the other side advocating marriage even with a sister or a daughter.

THE PHILOLOGICAL ARGUMENT FOR AN UPPER LIMIT TO THE DATE OF THE RGVEDA

By A. C. WOOLNER

This paper does not pretend to fix the date of the *Rgveda*. No attempt will be made to review such slender historical evidence as has been gleaned so far from the records of Mesopotamia, as to the arrival of the Medes and of the Horse. I shall not discuss the presence of Aryan names in a Mitanni record of the 14th century, B. C., or the possibility of an Aryan influence in the heresy of the Egyptian Akhnaten a century later. Nor again do I propose to discuss the internal evidence, whether of generations of Kings, or of the whole history of Vedic religion before Gautama Buddha.

While alluding to these matters, however, I venture to emphasise the need of resisting a definite *bias* one way or the other. It will be admitted that many people when discussing Indian dates have a distinct preference for the earliest possible date, simply because it is more remote. On the other hand I think some scholars have shown a strong bias towards the latest possible dates, simply because they are nearer to dated events ; in other words they always lean towards the lower limit and tend to regard any date beyond 1,000 B. C. as inherently improbable, unless supported by a dated inscription.

This difference of attitude has been so marked in this question of the date of the *Rgveda*, that it may

not seem a mere platitude to insist on the need of unbiassed judgment.

The aspect of the question with which this paper is concerned is the philological evidence for fixing an upper limit for the earliest hymn (whichever it is) of the *Rgveda*.

The argument has been stated by Prof. Macdonell in his *History of Sanskrit Literature* (p. 12) and more recently in the Hastings *Encyclopædia* (s. v. Hymns, Vedic).

The two wings of the argument are :—

- (1) That a comparison of the language of the Avesta with that of the *Rgveda* proves that the Aryans could not have entered the North West of India much before 1,300 B. C., and therefore, (granting that the hymns were composed afterwards,) no Vedic hymn is much older than 1,300 B. C.
- (2) Assuming that the Brāhmaṇa period begins somewhere about 800 B. C., three, or at the most, five centuries are 'amply sufficient' for the changes which the hymn literature reveals ; hence, by implication, any Vedic hymn older than about 1,300 B. C. is highly improbable.

Taking the second part of the argument first, it should be noted that it is not purely philological.

In his *History* Prof. Macdonell, following Max Müller, an early philologist, wrote :—"A lapse of three centuries, say from 1,300–1,000 B. C., would amply account for the difference between what is oldest and newest in Vedic hymn-poetry" and speaks of "A development of language and thought hardly greater than that between the Homeric and the Attic age of

Greece". In the Hastings *Encyclopædia* he says :— "To allow for all this gradual development it is necessary to postulate a period of some centuries, decidedly longer, for example than that between Homeric and Classical Greek.....Five Hundred years are amply sufficient to account for the gradual changes, linguistic, social, and political that this hymn literature reveals".

Of the comparison with Greek I shall say something later, but we may note here that this estimate does not claim to be precise, that it depends not merely on language but also on an estimate as to how fast social and political changes were likely to take place, and finally that the wording really indicates a lower limit (the lowest possible or the lowest probable) which is regarded as being fairly near the earliest probable date. Estimates as to the probable pace of social and political changes in Ancient India will vary, and there is the further difficulty that there is no fixed point before Gautama Buddha from which to reckon back. Prof. Macdonell says "Since that (Theological and Theosophical literature) is extensive, it cannot be assumed to have begun later than about 800 B. C." Again the lower limit.

We may compare the chronology of the *Aitareya Āranyaka* with its Upaniṣads as worked out by Professor Keith (p. 49. p. 73). He argues from work to work, taking the lower limit in each case: "Pāṇini, who cannot well be dated later than 300 B. C.;" "Yāska, who can hardly be brought down lower than 550–500 B. C.;" "Yāska cannot well be later than 500 B. C." and so on.

This is a perfectly legitimate method of arriving at a lower limit for the older books: obviously it does

not give an upper limit at all. Even so Professor Keith will go back as far as 700–600 B. C. for the second Āraṇyaka, and he admits "The upper date may perhaps be pushed further back". At this point he seems to have felt a qualm of orthodoxy; "but this involves the pushing back of the date of the *Rgveda*, for which, at least at present, no satisfactory evidence has been adduced". If to so conservative a scholar as Prof. Keith, his profound knowledge and patient analysis of Brahmanic literature suggest the possibility of pushing back the date of the *Rgveda*, and yet he refrains from this in the absence of satisfactory evidence, what is the nature of the evidence for fixing the dates of the *Rgveda* so low?

The answer is contained in the first wing of the argument, with which I am mainly concerned. Professor Macdonell writes in the Hastings *Encyclopædia* "If the language of the Avesta were known to us at a stage earlier by six or seven centuries, it could hardly differ at all from that of the Vedic Hymns." "It therefore seems impossible to avoid the conclusion that the Indians cannot have separated from the Iranians much earlier than about 1,300 B. C."

The study of this argument will involve us in some difficulties, and perhaps some doubts.

To start with, it is interesting to note that the comparison of the Avestan Gāthās with the Vedic hymns was first adduced (as by Geldner, *Encyclop. Britt.*, 11th edn., s. v. Persia) to prove "the extreme age of the Gāthās" and then adapted to disprove "the possibility of extreme antiquity" of the *Rgveda*. Geldner was arguing against the possibility of a Sasanian date for the text of the Avesta. He showed that there was development; the Gāthās were more

archaic than "the later Zend" and he stated that they had "a close resemblance to the language of the Vedas exceeding that of any two Romance languages : they seem hardly more than two dialects of one tongue. Whole strophes of the Gāthās can be turned into good old Sanskrit by the application of certain phonetic laws :" and he gives an example. Prof. Macdonell gives this in a stronger form. "By the mere application of phonetic laws, whole Avestan stanzas may be translated word for word into Vedic, so as to produce verses correct not only in form but in poetic spirit."

If however, one takes Gāthās at random this sort of transliteration process does not seem very easy. Professor Jackson writes :—"Because of this close correspondence, *many Avestan words and phrases* may be changed at once into their Sanskrit equivalents by the mere application of certain phonetic laws." That is a very different story, and I venture to think, more exact.

We may suspect then that though his conclusion was sound, Geldner exaggerated the similarity of the two languages.

Another difficulty, though not so serious, is the absence of definite dated starting points on either the Indian or the Iranian side of the argument. Prof. Jackson quotes as the generally accepted view that the Gāthās date back to an early period of the religion, if not to the prophet Zoroaster himself, and he gives as the extreme limits of the period of development about B. C. 560 and A. D. 375.

Macdonell takes the estimated date of the 6th century as his starting point. This may very likely be correct, quite apart from any doubt there may be about the date of Zoroaster. At the same time the

question suggests itself, why should not the philological comparison start from the dated inscription of Darius the Great in Old Persian? Is it impossible to estimate the difference in time between Old Persian and Vedic? Or again why not compare Darius' inscriptions of about 500 B. C. with those of Aśoka about 250 B. C.?

This question brings us to the root of the matter. How and to what extent can we estimate dates by comparing similar languages? That languages are continually changing is the primary fact from which philology starts. But it is soon obvious that they do not all change at a uniform rate. Icelandic has not changed so rapidly as English; Singhalese has travelled further from its original Indian source than Hindi has done. Is it not true that at certain periods of their history languages have changed faster than at others? When an old system of grammar is breaking down and being replaced by new methods, is not change likely to be more rapid than in the periods before and after? Is it not reasonable to expect that a period of fresh contact with new peoples will show more changes in pronunciation and vocabulary than a period of unruffled calm? May not both movement and stagnation be reflected in the growth of language?

If pace does vary under such circumstances, it is obvious that we cannot have a minute calculus,—of so much change means so much time,—though investigation might indicate the limits to be expected in varying circumstances. If however we take a wider sweep of time like six or seven centuries it may be claimed that the total change must have aggregated at least so much. The only method of investigating the question lies in observing how much change has taken place between known dates in many languages.

The argument we are discussing has in fact been content with two or three parallels.

One parallel is that of Greek from Homer to Plato. It is unfortunate that Homer is not definitely dated, and even if we accept the 9th century for the poet, he is held to have "dealt freely with the dialect of the old Achæan poems," (Bury, *History of Greece* p. 66). That means that the language of the Homeric poems is more archaic than the ordinary Ionian dialects of the ninth century. Attic is not only later, but is also a different dialect of the Ionian group. The geographical conditions of Hellas were particularly conducive to the growth and maintenance of many separate dialects (Giles. *Manual of Comparative Philology* p. 525). Moreover the period in question witnessed the expansion of Greece, the growth of Athens, and the conflict with Persia. These conditions are very different to those of the Aryans in Gāndhāra and Iran.

The changes of literary Greek from those Attic days down to the newspaper of to-day have been less rapid, especially if "mere" phonetic changes are discounted.

Another suggested parallel is between the Europeanising of America and the Aryanising of India. The differences in the conditions are here so obvious that it is difficult to regard it as really relevant. We may note that in India the process, though it still goes on after at least 3,200 years, is less complete than that in America; also that four centuries have not made a great difference in the European languages spoken in America.

If we glance now at other possible parallels we can find instances of apparent stability during long periods. In Egypt, as the records are rendered, the

lapse of a thousand years seems to make little or no difference to the language or the style. In the Assyrian records the language of the great King Sargon appears to be much the same as that of Nebuchadnezzar about two thousand years later. In Chinese again, apart from "mere" phonetic decay, it will be admitted that the language has changed extremely slowly during the last two thousand years.

To these examples the objection may be taken that they really represent stability of script, and that we do not know how much phonetic change may underlie the writing. Or with greater force it may be said, these are fixed stereotyped literary or priestly forms of language, not the untrammelled folk-speech which the philologist should study, and which we should assume for the early Aryans.

We may admit that the language of the hymns was not a written language. When and how the Gāthās were first written down we do not know. Old Persian appears at the end of the 6th century B. C., in a script that had been adapted from Assyrian cuneiform, and had presumably been in use some time before it was used for a royal document. As to pronunciation we should remember that the sounds of the letters in which the Gāthās and Old Persian are recorded have been deduced from the sounds used in later ages, and by comparison with Sanskrit. The sounds of the Veda are deduced from the oral tradition still existing, the directions of the Prātiśākhyas, the treatment of sounds in *sandhi* and so on. Now suppose these deductions to be absolutely accurate for the end of the period (*i.e.* for the century in which the latest hymns were composed) can they also be absolutely accurate for the beginning of the period (*i.e.* for the century in which the earliest *mantra* was composed)?

Either we must admit the probability of some amount of phonetic change that has not been recorded, or else we must assume several centuries at least of remarkable stability of pronunciation. A high degree of stability is not impossible, if the importance of correct oral transmission was recognised during the Vedic period itself. But the same oral tradition could also preserve the structure and vocabulary of a poetic dialect from rapid change. The hymns are not simple folk-poetry in contemporary colloquial idiom.

On the other side we know nothing, I believe, about the pre-Zoroastrian ancestors of the speakers of the Avestan language, except that they must have inherited some of the elements which are assigned to the Indo-Iranian period: including, as Professor Macdonell notes (p. 68), a religious hymn-poetry with stanzas of four eleven syllable, and of four or three eight syllable lines.

In other words Zoroaster's ancestors had a literary tradition, and very probably a poetic dialect which would tend to check rapid change.

I do not wish to exaggerate this argument, or maintain that either Vedic or the Old Iranian poetry was out of all relation to the ordinary spoken languages of N. W. India and Iran, but I do claim that the poetic dialect could remain more stable than the folk dialects, and that that fact has to be considered in any calculation.

I have reserved to the last the parallel of the Romance languages, though it was the first suggested by Geldner. Here we have the advantages of a great abundance of dated documents, and the history of the countries is known from other sources.

I have endeavoured to check the statement that

the Avesta is nearer to the Veda than any two Romance languages to each other. I will not enter into details here, but I must confess myself still unconvinced of its accuracy.

Brief mention may be made of an experimental attempt to find some numerical formula to express the relationship of Spanish and Italian. The most instructive points about that experiment are to be found, I think, in the difficulties encountered.

The very first question is, on how much, and on what sort of material should such an enquiry be based. The texts chosen with an eye to the Aryan parallel were the Spanish and Italian versions of the Psalms. Here are two documents in related languages derived in historical times from a common source. Can we correlate their relation to one another with the length of time since they diverged, and, in particular, estimate when the Romans colonised Spain?

The initial difficulty is to decide what sort of difference should be counted in. We cannot ignore mere phonetic changes, for some of these affect the development of the grammar. We cannot simply count the percentage of words common to both vocabularies, for though the Spanish version uses another word, there may be a word in Spanish which exactly corresponds to that used in the Italian version. To merely compare the grammars may exaggerate the importance of more unusual words. As a compromise (necessarily arbitrary) one may estimate for a given text the percentages of

- (a) Words common to the two versions that are identical in form;
- (b) Nearly identical but with slight phonetic change;

- (c) Equivalent but more changed, as "*figlio*" and "*hijo*."
- (d) Different words which can be replaced by equivalents, (i) nearly identical or (ii) much changed;
- (e) Different words that cannot be so replaced, as "*fratre*" and "*hermano*."

Suppose now that we have estimated the percentages of these six classes of words in our text, we should have a rough but numerical formula expressing the degree of resemblance between the languages of the two versions. Now how is such a result to be correlated with chronology? We shall at once wish to know whether the changes that have produced these differences have been continuous or whether they have come with a rush at certain times. Glancing at the history of Spanish we shall want to know whether the original contact with the Iberians (in the 2nd century B. C.) has influenced the language as much as, or less than, the occupation by the Visigoths in the 6th century A. D., or the contact with Arabic from the eighth to the thirteenth century. These questions can only be alluded to here. But it might turn out that for the first five centuries of the Roman occupation of Spain the language of the colonists remained essentially Latin (not all literary, but for colloquial purposes the average Low Latin of the Roman army) and that most of the changes came after that. If so, then any calculation as to how far back the languages would coincide, based on the assumption of a definite cleavage starting from the first invasion of Spain by the Romans, would be five centuries wrong.

Of course an obvious factor tending to retard the separate development of a Spanish language during the

first seven centuries was the continued contact with Rome and Latin.

Returning now to our special problem. The same method of calculation can be applied. I cannot claim to have carried this far enough to obtain results that are worth quoting. I am not prepared to prove my suspicion that the Avesta would show a wider degree of difference from the *Rgveda* than Spanish from Italian ; but let us assume that the difference is of the same order of magnitude.

What then should we conclude as regards chronology ?

The upper limit for these Romance translations is about 1400 ; later versions date about 1550. So we may equate about 1500 A. D. with about 500 B. C. for the Avesta.

Going back eight centuries we get to 1300 B. C., the supposed upper limit of the separation of the two branches of the Aryans, and to 700 A. D. for Roman colonization of Spain,—which is manifestly absurd—about nine centuries out !

On the other hand if we apply the parallel of about seventeen centuries from the Romance to the Aryan languages, we get to about B. C. 2200.

To avoid this result it would be necessary either to show that the difference between Avestan and Vedic was much less than between Castilian and Italian about 1500, (which I think is not the case), or else to argue that the circumstances were different and that the Indo-Iranian languages must have diverged more rapidly.

This latter course would mean that the argument was not purely philological, but was combined with certain assumptions, which may or may not be

justified, as to the previous history of the Aryans. We have been in the way of assuming that once upon a time the Indo-Iranians split up into two divisions of which one forthwith became Iranian and the other Indian ; after which they lost contact with each other, and each developed separately after its own kind.

Perhaps it was so. But in the absence of evidence, there remains the possibility that the separation was more gradual, and that contact was not broken the moment that the dialects began to diverge in the West and East. Even when contact was broken, the common inheritance of religious hymn-poetry would probably remain the most stable element in the languages on either side. Such a parallel development of a conservative literary tradition does not seem impossible. (We only know the Avestan language after Zoroaster's revolution). In any case philology cannot disprove its possibility.

Now I will sum up the general conclusions of my whole argument as follows :—

- i. Any attempt to fix chronological limits on the basis of comparing languages should be based on a more exact numerical comparison of dated documents than has been attempted hitherto. The conditions under which languages change more or less rapidly must be investigated. This opens up new lines of investigation.

If it be objected that linguistic change cannot be treated statistically, then grave doubt must attach to any numerical estimates based on general impressions.

- ii. Our attempts to come to grips with this particular argument suggest a further conclusion, which may be regarded as heretical. It is that while history known from other sources

can be traced in the history of language, it is much more precarious to reconstruct history on a basis of comparative philology alone.

- iii. In particular it seems that as far as any *philological* estimates go, 2000 B.C. remains quite as possible as 1200 B.C. for the earliest Mantra. Possibly more exact comparison may succeed in establishing the probability of a lower date, but I contend that this has not yet been done.

Perhaps it may be asked—is there then no limit? Can we equally well go back to 3000 or even 4000 B.C.? The answer to this is, I think, that no direct proof has been obtained from the philological data taken by themselves without any assumption as to historical conditions and the nature of the tradition. On the other hand, if an accurate comparison should show that these remoter dates would involve a degree of stability in a literary language twice as great as that recorded anywhere else in the world, philologists may reasonably demand strong confirmation from archæology.

And if again, on any reasonable assumption as to conditions, the remoter dates should indicate a degree of stability in folk-speech ten times or even five times as great as anything found elsewhere, the philologist will not be able to regard such a date as even faintly probable.

I imagine however that it is doubtful whether anyone would now propose so remote a date as 4000 B.C. for the *actual text* of any hymn, or for the Aryan settlements in the Punjab. The highest possible date for the Vedic deities, and of many elements of Vedic culture, not to speak of possible reminiscences of older periods, is a very different matter. Some of the strands in the web are admitted to be Indo-Iranian and some may even belong to the Indo-European period.

GOTRA AND PRAVARA

By C. V. VAIDYA

I was led to study this subject on account of the question whether the Rajputs (Kṣatriyas) have any *gotra* of their own ; or whether it is a fact, as stated by Vijñāneśvara¹ in his commentary on Yajñyavalkya's line असमानार्षऽगोत्रजाम्, that they have to employ the gotras of their Purohitas, having no gotras of their own. I have come to the conclusion that this is a wrong view and a later view. This subject apart, I may state here what I have found in my study about the origin and nature of gotras and pravaras.

The modern orthodox Hindu idea of *gotra* is that it is the name of the Ṛṣi or ancestor in whose line one is born, the ancestor being a son or descendant of one of the seven great Ṛṣis (the Saptarśis) and the eighth Agastya सप्तर्णां सप्तर्णामगस्त्याष्टमानं यदपत्यं तद्वोत्रमित्याचक्षते । Thus it is believed that the original Indo-Aryan families were eight, viz. 1 Viśvāmitra, 2 Jamadagni, 3 Bharadvāja, 4 Gautama, 5 Atri, 6 Vaśiṣṭha, 7 Kaśyapa, and 8 Agastya. But a very curious but important śloka in the *Mahābhārata* states that originally the gotras were four only, viz. 1 Bhṛgu, 2 Vaśiṣṭha, 3 Kaśyapa, and 4 Āṅgiras. This and the next śloka are as follows :—मूलगोत्राणि चत्वारि समुत्पन्नानि भारत । अङ्गिराः कश्यपैव वसिष्ठो भृगुरेव च ॥ कर्मतोऽन्यानि गोत्राणि समुत्पन्नानि पार्थिव । नामधेयानि तपसा तानिच ग्रहजं सताम् ॥ (शान्तिपर्व, अध्याय २९६) This means historically that there were originally four great stocks of Aryan families and that subsequently they were counted as eight. Looking into the later eight names and the ancient four, we find that Kaśyapa

and Vaśiṣṭha remain, but Bhṛgu is substituted by his son Jamadagni, Aṅgiras is substituted by his two sons or grandsons Bharadvāja and Gautama, and three are entire new additions, viz. Viśvāmitra, Atri, and Agastya. Possibly these were newly-arrived Aryan families, but that they must have come in Vedic times is clear, for all these three are well-known Vedic Ṛṣis or composers of Vedic hymns.

It is really strange to see that the *Mahābhārata* of 300 B. C. still retains the tradition that the original Aryan families were four, in spite of the fact that all the Śrauta Sūtras give the original family Ṛṣis as eight. The line कर्मतोऽन्यानि गोत्राणि समुत्पन्नानि पार्थिव is rather difficult of explanation. The commentator Nilakanṭha says “कर्मतोऽन्यानि गोत्राणि विश्वामित्रमासीयदिदं किञ्च तस्माद्विश्वामित्र इत्याचक्षते एतमेव सन्त इत्यादि श्रुतेः कर्मजान्येव सर्वाणि गोत्राणि” We have the Paurāṇika story here that Viśvāmitra became a Brahmin by his acts. But we know nothing about Atri and Agastya is said to be a son of Mitrāvaraṇa, i. e. in a sense a brother of Vaśiṣṭha. But this is a later legend; as also the legend that Viśvāmitra was a king of the Lunar line born from a scion sprung from Atri. This descent of Viśvāmitra is a palpably concocted later theory. The line of Viśvāmitra is a dubious line, which claims to be sometimes Solar and at other times Lunar. I believe that there were more lines than two among the Kṣatriyas and Viśvāmitra's line was entirely distinct from the Solar and the Lunar lines. Whatever this may be, we may be sure that there were originally four great Aryan families which came into India and that three other families came in subsequently; the old Aṅgiras being sub-divided into two. This gives us eight families or gotra-stocks. But the modern gotras are innumerable; in fact Baudhāyana says they can be counted by

thousands (गोत्राणां च सहस्राणि प्रयुतान्यवृद्धानि च ।) How is this to be explained ? Here comes in the Sūtra of Pāṇini (गोत्रं पौत्रप्रभृत्यपत्यम्) explaining the generally used word gotra or *gota* as it is used in modern Indian languages. Gotra in this sense means the descendants from the grandson onwards of any well-known man. In the families of the eight Ṛsis were born many men of note who by their great renown gave their names to their descendants. This sort of thing is still to be seen among Rajputs, which gives rise to clans named after famous ancestors such as the Chandavats from Chand and so on. I suppose the next line “ नामधेयानि तपसा ” of the *Mahābhārata* śloka may be interpreted in this way, though it is rather enigmatic. New names arise owing to austerity or renown and thus the number of gotras or gots goes on increasing.

The connection between gotra and marriage-restriction easily arises, when consanguinous marriages come to be prohibited in each nation. The Indo-Aryan notion about consanguinity became very fine in very ancient times and the knowledge of each person that he was born in a particular family, insisted upon in the performance of sacrificial rites, was useful for this. Persons born in the same family or gotra of course could not marry ; but this prohibition soon went further as the Aryans of India always remembered that they were born of one or other of the great eight Vedic Ṛsis. Here was evolved the law of pravara-prohibition which was also based on certain restrictions or necessities of sacrificial rites.

Now what is pravara ? The study of various Śrauta Sūtras in this connection has led me to formulate what is pravara and to trace the history of the descent of certain Aryan families. It has even suggested to me

that the priority of the different Śrauta Sūtras may be determined in view of the fact that the pravara-law enunciated by them gradually became rigid.

The theory of pravara according to all Śrauta-Sūtra writers is the same. It is based on the requirements of sacrifice. The Yajamāna or sacrifice-holder must choose the Hotā and the Adhvaryu of the same pravara as himself, and invoke fire in the name of the same ancestors. Thus Āpastamba who appears to be the eldest Sūtrakāra, says first in his Pravarādhyāya आर्यं वृणीते. The word आर्यं is difficult to interprete but I think Pundit C. Gulleri of Ajmer was correct when he told me that he looked upon आर्य as an adjective qualifying अभि understood.

That means that the sacrificer calls upon the fire by the name of his Ṛṣi. The commentator suggests two meanings, the second being the one given above. “ आर्यमृष्यपत्यसंबन्धं प्रार्थयते संकीर्तयति । अथवा आर्यमृष्यपत्यमाभिं यज-मानस्य कृपिसन्तानत्वात् । तं वृणीते प्रार्थयते होत्रादेभिरिति ।

It seems that in the Ṛgvedic times fires were known by the name of certain Ṛṣis and kings, for even the Ṛgvedic hymns mention आनव, सार्ज्य, and other fires. The significance of this I shall discuss at another time. The Sāṅkhyaśāṇa Śrauta-Sūtra cites the Ṛk अग्ने ब्रह्म महाँ असि ब्राह्मण भारत् in this connection and in this way looks upon Agni as a Brahmin, a Bhārata (Indo-Aryan) and a Ṛṣi. The sacrificer therefore praises fire as his own ancestor and prays him to look upon him the descendant as the ancestor himself. The pravaras are to contain all the Ṛṣis in one's ancestry, i. e. those who are the composers of Ṛgvedic hymns. Āpastamba gives the further sūtra त्रीन् वृणीते मन्त्रकृतो वृणीते यथपिमन्त्रकृतो वृणीते इति विज्ञायते—‘He praises three Ṛṣis, those who composed mantras’. The word मन्त्रकृतो is very important. The Sūtrakāra does not yet look upon the mantras

as eternal and Not-Made. The pravara Ṛṣis are therefore those Ṛṣis in one's ancestry who composed Vedic hymns. There may be many and there may be only one or two. The next rule given is therefore अथैकेयामेकं वृणीते द्वौ वृणीते त्रीन् वृणीते न चतुरो वृणीते न पञ्चाति वृणीते इति विज्ञायते ॥८॥ This means that the sacrificer should call upon one, two, three, never four nor more than five Ṛṣis. The reason of this is not given. Possibly it may be that sacrificial fires were one, two, three, never four nor more than five (पञ्चामयो ये च त्रिणाचिकेताः). Hence the pravara Ṛṣis are one, two, three or five. The method of reciting the Ṛṣis is different for the Hotā and for the Adhvaryu according to all Sūtrakāras.

The Adhvaryu goes backwards from the descendant to the ancestor, while the Hotā recites forward from the ancestor to the descendant e. g. भार्गवच्यावनाप्रवानौर्वजामदग्नयेति होता जमदग्निवर्त्तवदप्रवानवच्यवनवद्गुवदित्यच्चर्युः। The formula for the latter adds invariably the suffix वत् which means probably, as stated above, that the fire is requested to look upon the sacrificer like जमदग्नि who praised him in Vedic times or like his father ऊर्व or his grand-father अप्रवान or his great grand-father च्यवन or his father मृगु. This direction makes it certain that the Ṛṣis recited in Pravaroccāra are related as ancestors or descendants, and we know thus even the order of descent. These facts are very interesting as showing that the Indo-Aryans have kept up the memory of their descent from Vedic Ṛṣis through all these thousands of years, at least through three thousand years, the probable date of the composition of some of these Sūtras. I have tried to ascertain whether as a matter of fact the Ṛṣis mentioned in the pravaras have really left hymns composed by them in the Rgveda. So far as it was possible

to ascertain, the fact is correct. I am however looking over the सर्वातुकमणी to examine this question most carefully. But I have at this stage no doubt that the pravaras do contain the names of *mantrakṛt* Ṛṣis in the ancestry of Indo-Aryans.

If we scan the list of pravaras in detail we shall be able to deduce some further interesting historical facts. First the word Ṛṣi means a Ṛṣi mentioned in pravara which again means that he is the composer of a Vedic hymn. In later Sanskrit the word Ṛṣi is often loosely used. In the Dharma Śāstra however, Ṛṣi means pravara-Ṛṣi and Ārṣeya or Ārṣa means pravara itself, see the line असमानार्थगेत्रजाम् of Yājñyavalkya. Secondly of these Ṛṣis Bhṛgu was the foremost. In all pravarādhyāyas the pravara enumeration begins with Bhṛgu. Thus Āpastamba says भूगूणमेवाग्रे व्याख्यास्यामः। We can thus understand the line महर्षीणां भूगुरहम् in the Bhagavadgītā. Śrī Kṛiṣṇa identified himself with Bhṛgu among Maharsiṣ. He stands first in the list of Ṛṣis, as Mārgaśīrṣa stands first in the list of months and Kusumākara of seasons.

Thirdly the reminiscence in the *Mahābhārata* that formerly there were four great family-stocks only, Bhṛgu and Aṅgiras, Vaśiṣṭha and Kaśyapa, is still traceable in the Sūtras, which, though they describe gotra-Ṛṣis as descendants of the Saptarṣis and Agastya, still begin with the Bhṛgu gaṇa (a name not included in the Saptarṣis). The Bhṛgu gaṇa and the Aṅgiras gaṇa are the most important and these are names not of Saptarṣis but of the ancestors of some of them. In the pravara of these two gaṇas are found names of Kṣatriya kings born in the line of the Sun and the Moon. That these names are the names of some of the Lunar kings given in the Pañcāla and Kuru lines

is almost certain, for the names of fathers and grand-fathers and even great-grand-fathers coincide. Some kings born in the Solar line are also mentioned. What does this mean? Two inferences appear to be certainly deducible. First that this pravara system is not prescribed for Brahmins only, but for all the three Aryan varṇas, Brahmins, Kṣatriyas and Vaiśyas. At any rate, as I will show further on, this system in the Sūtra times was fully in vogue among Brahmins and Kṣatriyas and secondly it appears clear that certain Kṣatriyas became Brahmins and attached themselves to the gotra and pravara of their teachers or Ācāryas. I will discuss these two points in detail and speak of the latter first.

The clearest case is of Devāpi elder brother of Śantanu. He was a Kṣatriya but gave up his kingdom and went to the forest for Tapas. He is called Ārṣṭiṣena, because he joined that family of Brahmins. This family is in the Bhṛgu gaṇa and is clearly a Brahmin family, the pravara being भार्गवच्यावनाप्रवानार्षिषेणानूपोति। That he was originally a Kuru Kṣatriya is also clear and well-known, for the Brhaddevatā gives his history अर्षिषेणश्च देवापिः कौरव्यश्चैव शंतनुः । आतरै राजपुत्रौ च कौरवेषु बभूवतुः। Similar is the case of Garga. He was a son of Bhumanyu son of Vitatha, son of Bharata, son of Duṣyanta. This Garga became a Brahmin and attached himself to the Bhāradvāja family of Brahmins. Thus the *Vāyu Purāṇa* says दायादाश्वापि गर्गस्य शिनिवद्वा बभूवह। स्मृताश्चेत ततो गार्ग्या क्षत्रापेता द्विजातयः १६१ अ. ९९.

The pravara given of the Gargas coincides with this Puraṇic account. Thus Āpastamba अथ गर्गणां त्वापेयः आङ्गिरस-गार्ग्य-शैन्येति । शिनिवद्व॒र्गवद्विरोचत् । भरद्वाजमु हैके आङ्गिरसः स्थाने । Āśvalāyana gives गर्गणामङ्गिरसवार्हस्पत्यभारद्वाजगार्ग्यशैन्येति । आङ्गिरसशैन्य-गार्ग्येति वा ।

Exactly similar is the case of the Kaṇvas. Kaṇva was born in the Lunar line of Puru. His son was Medhātithi and from him were born the Kaṇvas. Thus Kaṇva was a near ancestor of Duṣyanta and hence is explained how Kaṇva lived in the forest of Duṣyanta's kingdom. The Puranic account is corroborated by the pravara of Kaṇva. Says Āśvalāyana कण्वानामाङ्गिरसाजमीढकाण्वेति । घोरमु हैके ब्रुवतेऽवकृष्याजमीढमाङ्गिरसचौरकाण्वेति । i. e. One Kaṇva is in the line of Ajamīḍha mentioned in the *Rgveda*. In these cases as Mr. Pargiter has properly inferred in JRAS 1918 on the Pañcāla Dynasty) Kṣatriyas who became Brahmins were incorporated into families of Brahmins either in the Ācārya gotra or by adoption and were not allowed to start a new line like Viśvāmitra.

But there are other Kṣatriyas whose names are mentioned in the pravara lists and who are not known to have become Brahmins. The only explanation of this is that the pravara lists are not intended for Brahmins only but also for Kṣatriyas and Vaiśyas even. It seems that Vaiśyas lost touch with gotra and pravara even in Sūtra times. But that the Kṣatriyas, like the Brahmins, kept their gotra and pravara memories always fresh, is certain from the following discussion quoted by *Pravara-manjari* from Kātyāyana अपि है के मानवेति मनुवदित्येकैकं सावेवर्णिकं प्रवृणीते । कस्य हेतोरिति मानव्या हि प्रजा इति । तदेतनोपपद्यते न देवैर्न मनुव्यैरार्थेयं प्रवृणीते । तदेतदन्यत्र ब्राह्मणक्षत्रियाभ्यामितरासां प्रजानामुक्तं भवति । 'Some Ācāryas say that only one pravara should be recited, viz. Manu. But that is not correct ; for it is ordained that pravara should not relate to gods nor to men but to Ṛsis only. Therefore that opinion should be held applicable to others than Brahmins and Kṣatriyas.'

I will give particular instances of such names as

are names of undoubted Kṣatriyas. The most noted are Māndhātā, Ambarīṣa, Yuvanāśva. They are mentioned in the Angiras group. Says Āpastamba अथ हरितानां श्यावेयः आङ्गिरसाम्बरीषयौवनाश्वेति । मान्धातारमुहैकेऽङ्गिरसः स्थाने मान्धात्राम्बरीषयौवनाश्वेति । This is a very interesting pravara, for it cuts off even the connection with Angiras. The three Ṛṣis or rather Rājarṣis are in the ascending order Yuvanāśva, Ambarīṣa and Māndhātā. These are not only undoubted Kṣatriyas but are also composers of Vedic hymns (9th Maṇḍala, see *Sarvānu-kramanī*) and therefore Rājarṣis. Now the *Vāyu Purāṇa* refers to this line and pravara, when it says (chapter 88) “तस्यामुत्पादयामास मान्धाता त्रीन् सुतान् प्रभुः। पुरुकुत्समम्बरीषं सुचुकुन्दं च विश्रुतम् । अम्बरीषस्य दायादो युवनाश्वोऽपरः स्मृतः । हरितो युवनाश्वस्य हारिताः शूरयः स्मृताः । एतेऽहाङ्गिरसः पुत्राः क्षात्रोपेता द्विजातयः ॥ ७३ ॥

Here we have the same line as given by the pravara, viz. Harīta, Yuvanāśva, Ambarīṣa and Māndhātā. They are clearly kings of the Solar line. The descendants of Harīta, *Vāyu* says, became Brahmins endowed with Kṣātra and were attached to the Angiras stock. The optional pravara which omits Angiras and substitutes Māndhātā has to be explained. And I explain it on the supposition that some Hārītas remained Kṣatriyas and recited in their pravara only the Rājarṣis. The difference between this pravara and that of Garga is that Garga, adopted into a Brahmin family, recites Brahmarṣis only in his pravara; while here even the Hārīta Brahmins stick to the two Rājarṣis, Ambarīṣa and Yuvanāśva.

Similar is the case with Maudgalyas who belong to the Pañcāla Lunar race. The pravara given by Āpastamba is as follows :—अथ मुद्गलानां श्यावेयः । आङ्गिरसभाम्बर्यश्व-मौद्गल्येति । तृक्षमुहैकेऽङ्गिरसः स्थाने तार्क्ष्यभाम्बर्यश्वमौद्गल्येति ।

Now the line as given in the *Purāṇas* is Mudgala,

Bharmyaśva and Ṛkṣa, while the *Vāyu* states clearly मुद्रलस्यापि मौद्रल्याः क्षात्रोपेता द्विजातयः । एते आङ्गिरसः पक्षे संश्रिताः कण्ठमुद्रलाः ॥

But here again we have to consider the alternative pravara which omits Aṅgiras and substitutes Tārkshya. To my mind, some descendants of Mudgala remained Kṣatriyas and did not go into the Aṅgiras stock; and they recited their pravara as तार्श्यभार्ष्यश्वमौद्रल्योति, all the three names being names of Kṣatriya kings.

The third mentionable pravara is that of Viṣṇuvṛddhas. Says Āpastamba अथ विष्णुवृद्धानामाङ्गिरसपौरुषुत्सत्रासदस्यवेति । Here there is no optional change and the Viṣṇuvṛddhas appear to have all become Brahmins from Kṣatriyas of the Solar line. The *Vāyu* says विष्णुवृद्धः मुतस्तस्य विष्णुवृद्ध यतः स्मृताः । एते आङ्गिरसः पुत्राः क्षात्रोपताः समाप्तिताः । Viṣṇuvṛddha is in the *Vāyu* not a son of Trasadasyu but a great-great-grandson, the latter being a son of Purukutsa. As probably the intervening kings are not Ṛsis or composers of Vedic hymns, they are not mentioned in the pravara.

In the Bhṛgu and the Aṅgiras stock there are enumerated gotras and pravaras which are शुद्धभृगु and शुद्धाङ्गिरस or केवलभृगु and केवलाङ्गिरस and these appear to me to be Kṣatriya lines. They may be mentioned here. Thus the work गोत्रप्रवरनिर्णय says चत्वारः शुद्धभृगवत्त्वयो हि जमदमयः । एते भृगुणाः सप्त सप्ताथो गौतमाः गणाः ॥..... Now the four Śuddha Bhṛgus are (1) वैन्याः (पार्थीः भार्गववैन्यपार्थीति). This is a purely Kṣatriya line, viz. of Pṛthu and Vena who are now here said to have become Brahmins. (2) वाद्यश्वामित्रयुधः (तेषामेकार्थेयोवाद्यश्वेति). Now Vādhryaśva and Mitrayu are names of kings as may be found from the Purāṇas. (3) गृत्समदाः शुनकाः. Now Gr̥tsamada is a well-known composer of Vedic hymns in the second Maṇḍala. The Sarvānukramaṇī of Kātyāyana even gives his story in the line “य आङ्गिरसः शौनहोत्रो भूत्वा भार्गवः शौनकोऽभवत्स गृत्समदः द्वितीयं

मण्डलमपद्यत् ” i. e. He was a son of Śuna-hotra, probably a king of the Āṅgiras family and he became a Brahmin, a son or pupil of Śunaka of the Bhārgava line. The story of Gr̥tsamada is given in the *Mahābhārata* Anu. P. Ch. 18, where he is said to have committed a mistake in reciting a Rathantara Sāma in Indra's sacrifice. But I do not know whether this story is the same as referred to in the commentary on *Sarvānukramaṇī*. In *Mbh.* Anu. Ch. 30 the story is given that Vitahavya, a Kṣatriya, became a Brahmin by the word simply of Bhṛgu. His son was Gr̥tsamada whose son was Suceta ; his son was Varcas and in his line was born Ruru whose son was Śunaka whose son was Śaunaka the reciter of Vedas and the man to whom Sauti related the *Mahābhārata*. Śunaka is thus Gr̥tsamada's descendant ; but there is another Śunaka who was his ancestor. The same names some-times recur and we have to be careful and find out the father's name also. The pravara alternatively given by Āśvalāyana is भार्गवशौनहोत्रगात्समदेति which proves that the Śaunakas were descendants of Śunaka, a descendant of Gr̥tsamada.

It may be stated here that this story of Vitahavya becoming a Brahmin by the mere word of Bhṛgu and the other stories of Kṣatriyas becoming Brahmins, coupled with the pravaras themselves, show that in the R̥gvedic times Brahmins and Kṣatriyas were not rigid castes but merely classes. It also appears to me that *Brahmins also often became Kṣatriyas*, as the story of Bharadvāja, a Brahmin, becoming the son of Bharata, son of Duṣyanta proves. The pravaras consequently appear to me to belong to Brahmins and Kṣatriyas indiscriminately.

(4) Vitahavya is himself a Ṛṣi and is mentioned in the pravara of यस्कवाधूलमैनमौकशार्कराक्षिसार्षिसावर्जिशालङ्कयन-

जैमिनिदेवन्त्यायन gotras, viz. भार्गवीतहव्यसावेतसेति (*Āśvalāyana*). Apparently Gr̥tsamada, his first son, went into another gotra, viz. that of Sunaka. And Vitahavya and Sunahotra may be the same or father and son.

I need not go into the other pravaras. Although gotras are thousands, innumerable so to say, Baudhāyana counts the pravaras as 49 only (ऊनपंचाशद्वैयां प्रवराः परिकीर्तिः) They are divided as follows:—Śuddha Bhrgus 4, other Bhrgus 3, Śuddha Aṅgirasas 7, through Bharadvāja 3, Gautamāngirasas 7, Atris 3, Viṣvāmitras 10, Kaśyapas 4, Vaśiṣṭhas 4, Agastyas 4, in all 49.

Lastly I have to turn to the Sūtra पुरोहितप्रवरां राजाम् ... and others and to the Sūtra that Kṣatriyas if they wish should recite the pravara मानवैलपौरूषरवसेति. The Vaiśyas are again to recite their pravara as Vatsapri son of Bhalandana, who has no doubt composed a R̥gvedic hymn. I surmise that these Sūtras were necessitated by the fact that even about the time of the Sūtras, i. e. about 100 B. C. or thereabout, the Kṣatriyas and Vaiśyas had begun to forget their gotras and pravaras and hence one pravara for each of them was provided. But this clearly contravenes the marriage-law, wherein gotras and pravaras are always to be consulted. As all Vaiśyas and all Kṣatriyas would be of one pravara, this prohibition would be meaningless for Kṣatriyas and Vaiśyas. And yet the Smṛtis—notably Yājñavalkya—apply it to them also. Are they then to regulate their marriage relations by the pravaras of their Purohitas? Have they no gotras of their own? And yet inscriptions mention the gotras of Kṣatriya kings.

THE MENTION OF THE MAHĀBHĀRATA IN THE ĀŚVALĀYANA GRHYA SŪTRA

BY N. B. UTGIKAR

[For the abbreviations used, see at the end of this paper, p. 61.]

It is well known to students of Sanskrit literature that one of the earliest references to the *Mbh.* occurs in the *ĀGS* III. 4. Indeed, the only other mention of that epic in any other work belonging to the ancient period of Indian literary history, is to be found in Pāṇini, VI. 2.38. All other early references to the poem occur in the *Mbh.* itself (Compare P. W., s. v. Mahābhārata). It is the former of these two early references which forms the subject of this paper.

2. The passage itself of the *ĀGS* under reference is as under :—

अथ कृपयः शतर्णिनो माध्यमा गृत्समदो विश्वामित्रो वामदेवोऽत्रिभरद्वाजो
वसिष्ठः प्रगाथा: पावमान्यः शुद्रसूक्ता महासूक्ता इति । प्राचीनावीती सुमंतुजैमिनि-
वैशंपायनपैलसूत्रभाष्यभारतमहाभारतधर्मचार्यः ॥

(Page 15a of the Pothī form Nirnayasagar Edn. ; p. 164 of the Bibl. Indi. Edn. ; p. 29 of Stenzlers' Edn. ; p. 127 of the Bombay Edn. of 1909.)

3. The mention of such an important work as the *Mbh.* occurring in an early work of the post-vedic period naturally attracted the notice of modern Sanskritists from early times. Among these, Rudolph Roth was the first to draw attention to the passage (*Zur Litteratur des Weda*, 1846, p. 27). This he did, not from the point of view of the *Mbh.*, but only to draw attention to the mention therein contained of the traditional Ṛṣis or 'Seers' of the ten Maṇḍalas of the *RV* who are mentioned in the beginning of our passage. Weber followed him in 1852 in his *History of Indian*

Literature (p. 56 of the Eng. translation in the Trübner's Ori. Series Edn. of 1892), and in 1853 at p. 35 of his Catalogue of Sanskrit MSS. in the Berlin Imperial Library. Max Müller discussed the passage in 1859 in his *History of Ancient Sk. Liter.* (p. 22 of the Pāṇini Office Reprint of 1912), and R. G. Bhandarkar, in 1872, in the JBBRAS. Vol. 10 p. 81 ff. Later historians of Sanskrit literature and other scholars have taken due notice of the fact of Āśvalāyana's mentioning the *Mbh* (Macdonell, *History* p. 285; Winternitz, *Geschichte* I p. 400 and 402; C. V. Vaidya, *Mahābhārata: a criticism*, p. 6; B. G. Tilak *Gitārahasya*, p. 520, Holtzmann, *Das Mahābhārata* IV p. 27f, Dahlmann, *Das Mahābhārata also Epos etc.* p. 152ff; and Hopkins, *Great Epic of India* p. 389f; cf. also Oldenberg, *Indische Studien* Vol. XV, p. 153, with reference to the corresponding passages of the Śāṅkhāyana and Śāmbavya Sūtras.)

4. For the history of the text of the *Mbh*, such a piece of testimony, pointing, as it would have done, to the existence of the *Bhārata* and the *Mahābhārata* for the time of Āśvalāyana, would have been highly valuable, were the authenticity of the text of Āśvalāyana unchallenged, and his date approximately fixed. But as is unfortunately the case with almost all other problems of Indian literature and chronology, the authenticity of our passage has been impugned on textual, comparative and interpretational grounds, and in general, its value sought to be belittled. Leaving aside, for the present, the question of the date of the Āśvalāyana *Grhyasūtra*, it is proposed to examine here some of the objections raised against our present passage.

5. Among the scholars referred to in para 3

above, Weber, Max Müller, Holtzmann and Hopkins express doubts concerning the authenticity of the words *Bhārata* and *Mahābhārata* occurring in the passage. The objections that can be raised against the passage have been perhaps best summarised by Hopkins (l. c. p. 389f). They are:—

- (a) The *Gṛhya Sūtras* belong to the close of the *Sūtra* period.
- (b) The words *Bhārata* and *Mbh* are a substitute for *Itihāsa* and *Purāṇa* mentioned earlier in the same *Sūtra*.
- (c) Some of the latest *Sūtras* mention *Itihāsa* and *Purāṇas*, only the *ĀGS* mentioning *Bhārata* and *Mbh*. The *ĀGS* may therefore be justly regarded as one of the latest *Sūtras*.
- (d) The *Śāṅkhāyana Gṛhya* does not mention *Bhārata* and *Mbh*.
- (e) Therefore they are interpolated in the *ĀGS*.
- (f) In some texts (*i. e.* MSS) of *ĀGS* only the *Bhārata* is mentioned; therefore just as the *Mbh* may be supposed to have been inserted later, so we may hold that *Bhārata* itself might be an insertion in the *ĀGS*. This view gains support from a comparison of the text of *ŚGS* (cf. d above.)
- (g) The *Śāmbavya Gṛhya Sūtra* mentions only *Mahābhārata*, with no mention of the *Bhārata*.

These variations in the mention of the *Bhārata* and the *Mbh*, show according to Hopkins' reasoning what the history of the mention of the *Mbh* might be: it might have grown from:—(1) No mention of either the *Bhārata* or *Mbh* in *ŚGS* and other *Gṛhya Sūtras* to (2) Mention of the *Bhārata* only in some MSS of *ĀGS*,

developing to (3) Mention of the Bhārata and Mahābhārata in some MSS of ĀGS, leading to (4) Mention of *Mbh.* only in *Sāmbaya Grhya Sūtra*, by the time of the composition of which, all tradition about a (smaller) *Bhārata* was obliterated, only the current bigger *Mahābhārata* being universally in the mouth of all.

6. As regards the textual question, it comes in thus. Max Müller states in his *HASL* (as quoted above) that one of the MSS of ĀGS belonging to the Library of the East India House, which he consulted gave the reading of the passage as भरतधर्माचार्यः instead of भारतमहाभारतधर्माचार्यः, the भ in the former being a mistake for भा. This reading gives rise to the supposition that one line of the traditional text of the ĀGS refers itself to a period when only the भारत was known : in other words to a period when the *Mbh* was yet to be. This is the interpretation put on this particular passage by Hopkins (l. c. p. 390) when he says "some texts make even the Āśvalāyana Sūtra omit *Mbh.* altogether, reading Bhāratadharmačāryāḥ" (Compare 5f above).

7. One of the other main grounds on which the authenticity of the ĀGS passage is doubted, I have ventured to call interpretational. Āsv., as is well known is a Sūtra Carāṇa of the *RV* and from a comparison of this passage with the corresponding one in the Grhya Sūtra of Śāṅkhāyana, another Sūtra Carāṇa of the same Veda, it is concluded by Weber (*History*, p. 56f, Holtzmann, l. c. p. 27, and Hopkins l. c. p. 390) that as the ŠGS does not contain the two words, their presence in the ĀGS is an interpolation, pointing to a later date of Āsv. than Śāṅkhāyana. The corresponding passage in the ŠGS runs thus :— (after भूद्मूलाः महामूलाः) मुमन्तुः ऐमिनैषाम्पायनपैलस्मृतभाष्य

गाग्येव ब्रुवा भ्रव्यमण्डमाण्डव्याः गाग्याचक्षवी..... कहोऽं कौपीतकिम्
..... ये चान्ये आचार्यास्ते सर्वे तृप्यन्तु (Oldenberg's Text, in
Indische studien Vol. XV, p. 92).

8. Max Müller's transcription of the passage of the MS of *ĀGS* (this MS being the same as described by Eggeling in the catalogue of the Sanskrit MSS of the India Office Library, Vol. I, p. 41 under No. 253) and the conclusions drawn therefrom, led me to examine all the MSS of the *ĀGS* in the Government MSS Library at the Bhandarkar Institute, and it is found that while three MSS viz. No. 9 of A1879-80, No 75 of A 1881-82 and No. 68 of 1884-87 support the reading भारतमहाभारत, there is only one MS, viz. No. 8 of Viś I which gives the reading of भारत only (with no mention of महाभारत.) Further there are a number of good many other MSS of *ĀGS* described in reliable descriptive catalogues, viz. Weber's Berlin, Eggeling's India Office, Aufrecht's Bodlean and the Madras Library Catalogues. None of these catalogues note any variant. Three of the other MSS of *ĀGS* belonging to the India Office, were, before Eggeling, referred to by Roth too (l. c. p. VIII). It would thus appear that only two of the MSS examined read भारत (only), many of the others reading भारतमहाभारत.

9. But—and this is the point to be emphasised, but—one is not convinced that one has here to deal with two distinct lines of traditions in the text of the *ĀGS*—and that an examination of the MSS of the Sūtra reveals a particular period in the history of the Mbh. viz. that one when Āśvalāyana knew only the Bhārata. The discrepancy in the reading of this particular passage in the MSS of the *ĀGS*, is, I venture to submit, amply covered and can indeed be satisfactorily explained, by what students of textual criticism call 'Homoeographa' or Haplography (see Article on

Textual Criticism by Postgate in the *Encycl. Brit.* 11th edition, Vol. 26, Compare also, F. W. Hall, *Companion to Classical Texts*, p. 189 (with examples) who calls this sort of mistake "Haplography"). This is simply and primarily a mistake of the eye, arising when similar letters or groups of letters stand next to each other, and it results in the loss of one of the similar group of letters. We can imagine easily, how, after the copyist had written the words पैलसूत्र भारत his eye might have unwittingly wandered on to the भारत of the next word, महाभारत, and thus the whole group महाभारत come to be omitted.

10. Further if we are to judge by the reading given by Max Müller (भरतधर्मा०) there would seem to be an additional reason for believing that in the transcription of this particular passage, the copyist had not had his wits about him, since he wrote भरतधर्मा० instead of भारतधर्माचार्य०. The former expression, as it stands, has no meaning. A further plausible reason for confusing the eye (and therefore the mind) of the scribe in this particular part of the text is also the presence of three भा quite close to each other. In one of the Poona MSS, viz. No. 68 of 1884-87 the "भा" of भाष्य has been added by the copyist in the margin.

11. It is not therefore too bold a conjecture to make that the omission of the word *Mbh* in certain texts of the AGS is simply due to the copyist's error, and that we are not justified in holding that the text reveals to us two distinct lines of deviation, in one of which the word *Mbh* was interpolated subsequently. To put the same statement in other words; the tradition of a *Bhārata* as also of a *Mahābhārata* may reasonably be presumed to be known to the author of the AGS from the beginning.

12. A second objection against the trustworthiness of our present passage is that "here the words *Bhārata* and *Mbh* occur in a list of authors and works as substitutes for the earlier mention of *Itihāsa* and *Purāṇa* in the same place.....But when the words do actually occur, they are plainly additions to the earlier list" (Hopkins op. cit. p. 389). In the first place, it is to be observed that the second list in *Āśva.* is not of "authors and works" but of "authors" only, a fact to be referred to again below. It is now true that in the earlier section beginning with अथ स्वाध्यायमधीयीत (III. 3) *Āśv.* mentions गाथानाराशसीः and इतिहासपुराणानि. It is also true that these two kinds of literature form the material from which the epic arose; but the distinction lies in this that the earlier list is of works only-of *Svādhyāya*-and the second of authors or Ṛṣis and Ācāryās. More important than this is however the fact that the earlier list, and indeed the whole passage treating of the पञ्चवक्षाः is mainly a summarised copy of *Śatap.* Br. XI. 5. 6., a fact noted by Oldenberg in his translation of *ĀGS* (SBE, Vol. XXIX, p. 218). We might compare, पयआहुतयो ह वा एता देवतानां यद्यचः स य एवं विद्वानृचोऽहरहः स्वाध्यायमधीयेते पयआहुतिभिरेव तद्वारास्तर्पयति । त एनं तृप्तास्तर्पयन्ति योगक्षेमेण प्राणेन रेतसा सर्वात्मना सर्वाभिः पुण्याभिः सम्पाद्धौः &c. of *Śatap.* Br. with यद्यचोऽधीयेते पयआहुतिभिरेव तद्वेतास्तर्पयति of *ĀGS.*

After enumerating the traditional list of ancient works as was known and preserved in his times, our author may reasonably be supposed to have begun afresh a list of Ṛṣis and Ācāryās after the Devatās. These are *not* mentioned in the earlier list. That the first passage of *ĀGS* very much resembles in substance that of the *Śatap.* Br. is simply a proof of how the later literature rests ultimately on, and naturally grows out of, the older materials and how it cannot simply be

called a growth due to some extraneous causes. It is no objection against the genuineness of the ĀGS mentioning the *Bhārata* and the *Mahābhārata* at the place where it does, to urge that the section of the *Śatap. Br.* to which it corresponds is itself a later addition to that Brāhmaṇa (cf. Weber, *History*, p. 121f), since the completion of the Brāhmaṇa as a whole must be presumed to have preceded the ĀGS.

13. Most of the scholars have regarded the ĀGS passage under discussion as a later interpolation. No cogent reasons are however adduced. Thus Roth (op. cit. p. 27) simply calls the whole of the passage as ‘probably not originally belonging to this Sūtra’ without, however, giving any additional reason. Perhaps the only reason that can be conceived is a comparison with the corresponding passage of Śāṅkhāyana. But is the ŚGS really older of the two? Is the maxim that shorter texts are older ones universally correct? Further, there are at least two arguments which can be adduced to show that no great weight can be attached to the absence of the words *Bhārata* and *Mbh* in the ŚGS. Oldenberg, the editor and translator of that Sūtra is inclined to regard chapters IX and X of the fourth Adh. of the ŚGS which contains the passage parallel to the ĀGS one, as a “supplementary addition” to chap. VI of the same Sūtra, i. e., he regards the देवतातर्पण and the कृषितर्पण sections of the ŚGS as *not* having originally belonged to that Sūtra (SBE Vol. XXIX, p. 120f foot note). If these passages are therefore to be regarded as borrowed, their source can be no other than the ĀGS.

14. And secondly the way in which the two words सूत्र and भाष्य are mentioned in the ŚGS is not convincing: the mention of two works only in the midst of a number of R̄ṣis and Ācāryās preceding and

following raises a strong presumption against their originally having formed part of the text. It will be understood that in the corresponding passage of the *ĀGS*, the mention is all of individual Ācāryas. Thus Āsv. begins अथ कृष्णः, and after महासूक्ता इति he begins a new passage सुमन्तुजैमिनीवैशंपायनपैलसूत्रभाष्यभारतधर्मचार्याः जानंतिबाह्विगाग्ये &c. But in *SGS* it is thus: सुमन्तुजैमिनीवैशंपायनपैल (all Ācāryas), सूत्रभाष्य (two works), ब्रह्माश्रव्यमण्डु etc., etc. to सुलभामैत्रेयी (again, all Ācāryas).

There is thus wanting in the *SGS* any supporting word to indicate the authors (आचार्याः) of the सूत्र and the भाष्य. Āsv. has previously mentioned the Ṛṣis of the ten Maṇḍalas of the *RV* in शतर्चिनो.....to क्षद्रसूक्ता महासूक्ता इति, क्षद्रसूक्ता महासूक्ता are Ṛṣis, *not* authors. Compare वृहदेवता III. 116 p. 34 of Macdonell's Edn :—

प्रथमे मण्डले हेया कृदयस्तु शतर्चिनः ।

क्षद्रसूक्तामहासूक्ता अन्त्ये मध्येषु मध्यमाः ॥

When scholars speak of Āsv.'s mention of *Bhārata* and *Mbh.* in a list of authors and *works*, it is probably due to the fact that क्षद्रसूक्ताः and महासूक्ताः are regarded as works, when they are to be in fact regarded as Ṛṣis, and their not connecting the word आचार्याः with सूत्र, भाष्य, भारत, महाभारत and धर्म. Each class of work has necessarily to be taken singly with आचार्याः.

Oldenberg (l. c. p. 220) translates the passage of the *ĀGS* thus: "Sumantu, Jaimini, Vaiśampāyana, Paila, the Sūtras, the Bhāsyas, the *Bhārata*, the *Mahābhārata*, the teachers of law, Jānatī Bāhavi Gargya etc., etc.....the Sākala (text), the Bāskala (text).....Śaunaka, Āśvalāyan—and whatever other teachers there are, may they all satiate themselves." It can be urged against this translation that the Sūtras, the Bhāsyas, the *Bhārata* and the *Mahābhārata*, (and further down) the

Śákala text and the Bāskala text cannot be regarded as teachers.

15. It is therefore very much doubtful whether the words सूत्र and भाष्य in the *SGS* did really form originally an integral part of the text, or whether the two words might not have crept in there through a more or less acquaintance with, or imperfect borrowing from, the *ĀGS*. In favour of this supposition speaks the circumstance that the mention of two works in the midst of a list of teachers is indeed a curious feature. As will be mentioned just below, there are some special reasons which would satisfactorily explain why Āśv. of all teachers should have mentioned *Bhārata*, and *Mbh*, and why the *SGS* and other texts might not have mentioned them, even granting that the former work did originally contain the suspected section on the *Tarpaṇa* and the mention therein of the two other classes of works, viz. the *Sūtra* and the *Bhāṣya*.

* * *

16. An attempt has been made above to vindicate the probability that the tradition of the existence of both a *Bhārata* and of a *Mahābhārata* was current in the time of the composition of the *ĀGS* and that it was therein embodied. Unfortunately the date of the *Sūtra* cannot be fixed even approximately: nay, the likely period of the composition of the class of works to which it belongs, is also a matter of much uncertainty. And it is still an open question whether the different "periods" of the early literature are exclusive or whether they often overlap each other. Apart from all this however, there are sufficient indications preserved for us in the literary tradition of India which enable us to understand why the *Bhārata* and the *Mahābhārata* might have come to be noticed and recorded by Āśvalāyana. This latter is a direct pupil of Saunaka,

and Śaunaka's name is closely associated with the final redaction of the *Mbh.* itself. This point is of much importance and may well deserve our consideration.

17. Śadguruśiṣya, a vedic commentator, belonging to the latter half of the 12th century A. D. who "lived in the middle of the period of the revival of Vedic studies in India, almost half way between Kumārila and Sāyaṇa" (Macdonell, in the preface to his Edn. of Kātyayāna's *Sarvānukramaṇī*, preface p. XIX) throws a flood of useful and interesting light on these relations of preceptor and pupil between Śaunaka and Āśvalāyana, as also on the works composed by them two. (For the passage itself, see Max Muller History, p. 120). That Āśvalāyana was a pupil of Śaunaka can also be seen from the way in which Āśv. concludes his Sūtra—नमः शैनकाय. Śadguruśiṣya has also something more to tell us. Before enumerating the works, which Śaunaka composed "for the preservation of the Veda" (*vedaguptyaye*), he informs us how Ugraśravas narrated the *Mbh.* Ākhyāna to the great sage Śaunaka during his twelve-years sacrifice. As is well known, this account is also mentioned in the *Mbh.* itself (I. 1. 4 etc.). The same writer further tells us that Śaunaka narrated to King Śatānika, the son of Janamejaya, the विष्णुधर्मान्. Śaunaka therefore is to be regarded as a teacher of Āśvalāyana, and also as one standing in close relation with the third Paurava king after Parīkṣit, the son of Abhimanyu. (cf. Pargiter, *Dynasties of the Kali Age* p. 4, and the Paurāṇic authorities quoted there regarding Śatānika and Śaunaka).

18. All this therefore converges to substantiate our contention that there is a particular propriety in the mention of the *Bhārata* and the *Mbh.* in the Āśvalāyana Sūtra. The writer is an immediate pupil

of Śaunaka; one of the literary activities which Śaunaka therefore might be reasonably supposed to have countenanced, finds an appropriate mention in the writing of the pupil of Śaunaka.

19. We have now to consider the significance of the mention of both the *Bhārata* and the *Mbh.* in the *ĀGS*. Here we have unfortunately to rely solely on the statement of the *Mbh.* itself regarding its growth. The two main statements are:—

- (I) इदं शतसहस्रं तु श्लोकानां पुण्यकर्मणाम् ।
उपाख्यानैः सह इयमाद्यं भारतसुतमम् ॥
- (II) चतुर्विंशतिसाहस्री चके भारतसंहिताम् ।
उपाख्यानविना तावद् भारतं प्रोच्यते दुधैः ॥

These verses make it clear that the (smaller) *Bhārata* of 24,000 verses grew into the (greater) *Bhārata* of 100000 verses. The former did not contain the उपाख्यानाः. With the addition of the उपाख्यानाः however, it reached the dimension of one hundred thousand verses. (*Mbh.* I. 1 101b. to 103a in Bombay edn.)

20. Are we however justified in holding that the भारत became the महाभारत before Āśvalāyana? or in other words that the उपाख्यानाः were added before Āśvalāyana? I think, yes. The personage who recited the Mahā-bhārāta to Śaunaka, is Ugraśravas, the पौराणिक who is also पुराणे कृतश्रमः. Here is perhaps offered to us a hint that Ugraśravas is responsible for the addition of the matter over and above the 24,000 verses—*Bhārata* of old. This matter is of a Paurāṇic kind, since “in a Purāṇa are forsooth contained divine stories and initial genealogies of the wise” पुराणे हि कथा दिव्या आदिवंशाश्च धौमताम् (*Mbh.* 1. 5.2). We might also compare the introduction to I. 1. and conclude that it was the most diverse kinds of stories that imparted the महाभारतत्व to the original epic.

21. It is not improbable that the additions made to the *Bhārata* were still fresh in the minds of the people and were recognised as such about the time of Āśvalāyana. The additions soon came to be regarded as a part and parcel of the work, and so both these circumstances led to the mention of the *Bhārata* and the *Mbh.* in the *ĀGS*. Lastly it has to be noted that the *Mbh.* being closely connected originally with the name of Śaunaka, it may not have been deemed necessary by the other Sūtra-writers to enumerate it in the śākyāy list of their respective Sūtras. In this respect it is to be observed however, that the *Mbh.* is usually regarded as being developed in the School of the Yajurvedins (cf. Hopkins I. c. p. 368). This hypothesis requires however additional evidence before it can command general acceptance. It may after all turn out that the ascription of such general works as the *Mbh* to a particular school may be unjustifiable. The contents of such works would seem to protest against such a procedure. There is nothing particularly R̥gvedic or Yajurvedic about the *Mbh.* which may entitle us to ascribe it more to either of the Vedic schools concerned. The probabilities would, if any thing, point to a different conclusion than the one quoted above. But this is not what at present we are immediately concerned with.

22. Max Müller says (*HASL*. p. 119) that if the Śaunaka who is the preceptor of Āśvalāyana and the Śaunaka to whom the *Mbh.* was recited, be one and the same person, then "a most important link would be gained, connecting Śaunaka and his literary activity with another period of Indian literature. But this point must be reserved for further consideration." That Śaunaka and Āśvalāyana belonged to what might be

called the connecting link of two literary periods, which almost imperfectly glide into each other, is clear enough from another piece of tradition left to us by Śaṅguruśīṣya and also by Sāyaṇa. Their works cover the Vedic as also the subsequent period. Āraṇyaka V of the Aitareyāraṇyaka is attributed to Śaunaka, and the fourth of the same work to Āśvalāyana (For this whole question, see Oldeberg, SBE, Vol. XXIX, p. 154f.). We might also compare the *Mbh.* itself I IV 6, where Śaunaka is called शान्ते चारण्यके गुरुः. We also know what other works of the Sūtra style are attributed to these two writers. They therefore stand at the juncture, or if we so will, at the parting of the ways of the Vedic and the Sūtra period. Their works are influenced by the motive of the preservation of the old Vedic literature—*vedagupti*. It is to be added that if we would fain believe this part of the tradition recorded by Śaṅguruśīṣya and Sayana, regarding their authorship of parts of the *Ait. Ar.*, there is no reason why we should disbelieve Śaṅguru's another statement that it was also this Śunaka to whom the *Mbh.* was recited.

* * *

Lastly I have only one point to allude to. Supposing the *Mbh.* war to be a real event, a new era seems to have been opened in literary, social and Political matters, with the advent of the Pāṇḍava dynasty. I grant that here we have mainly Paurāṇic authorities to depend upon but at the same time it is to be remembered that they are not lightly to be set aside. If this be admitted, the reigns of the earlier Paurava kings gain greatly in significance. Janamejaya, the son of Parīkṣit is reported in the Purāṇas to have a bitter quarrel with Vaiśampāyana (cf. Pargiter I. c. p. 86 f.). The *Mbh.* itself was first promulgated by Vaiśampāyana during Janamejaya's reign. Though

the exact nature of the dispute between Janamejaya and Vaiśampāyanā cannot be ascertained, still so much is certain that the supreme authority of the Brahmins began to be called in question. It was to his son Śatānika that, according to Śadguruśīṣya, the *Mbh.* was (again?) recited by Śaunaka. It is also a significant fact that the geneology given in prose of the Paurava line in the *Mbh* itself (I.95) stops with Aśvamedhadatta, Śatānika's son. The initial compilation of the modern Purāṇas would seem to go back to the reign of Adhisimakṛṣṇa, the fifth king of the Paurava line (अधिसीमकृष्णो धर्मात्मा सांप्रतं योमहायशः compare Pargiter, l. c. p. 4, and Intro. p. VIII f.) It would thus look that the new order of things established after the great war, was marked by a peculiar outburst of literary and social activity. Brahmins or Ācāryas like Śaunaka and Āśvalāyana were at once engaged in consolidating and establishing on a secure basis the old Vedic literature, and in producing and lending support to works suited to the altered times. There were probably as already mentioned, kings like Janamejaya too, who began to challenge the overweening Brahmanic presumption, asserted with undue emphasis with regard to seemingly insignificant ritualistic details.

* * *

I only hope to have made clear that the mention of the *Bhārata* and the *Mbh.* in the *ĀGS* is to be held as textually genuine and justified by other important considerations, and that if this be admitted—as I think, it must be—then we shall have succeeded in gaining an important link—an *Anhalts-punkt*—justifying us in taking the history of the origin and development of the *Mbh.* appreciably backward.

This subject must for the present remain here:—objections could possibly be raised against the line of

reasoning here followed. A consideration of these together with a discussion of the similar mention of the *Mbh.* in Pāṇini and of the probable dates of these two works, as also the question of the individual or school authorship of works like the ĀGS, and similar other questions must be reserved for some future occasion.

The abbreviations used in this paper are:—

ĀGS	=	Āśvālayana Gṛhya Sūtra
Āsv	=	Āśvalāyana
HASL	=	History of Ancient Sanskrit Literature
Mbh.	=	Mahābhārata
P.W.	=	Böhtlingk and Roth's Petrograd Sanskrit German Dictionary.

Postscript:—As the proofs are being passed for the Press, I take the occasion of stating that the first of the two verses of *Mbh.* I I referred to on p. 57, above, *viz.* इदं शतशस्त्रं तु is found wanting in five of the six MSS of the Government Library with us. The omission is not accidental and therefore acquires a peculiar significance, though the former half of this verse which recurs in the text (G. K. I. 62.14a) is found at this latter place in all these MSS.—N. B. U.

THE AUTHORSHIP OF THE NIGHĀNTU.

BY R. D. KARMARKAR.

(All references to pages are to the व्यंकटेश्वर press edition.)

Tradition regards the *Nighāntu* and the *Nirukta* as the work of one and the same author viz. Yāska. The fact that this tradition cannot stand has been recognised even by the commentator Durga, who, at the very beginning of his commentary, says स [समान्नायः] च ऋषिभिर्मन्त्रार्थपरिज्ञानायोदाहरणभूतः पञ्चाध्यायीशास्त्रसंग्रहभोवेन एकस्मिन्नाम्नाये ग्रन्थीकृत इत्यर्थः, thus attributing the Samāmnāya to ancient sages and not to Yāska. On p. 307 also Durga remarks 'अकूपारस्य दावने' इत्ययमनयोः पदयोरनुक्रमः । समान्नाये पुनः 'दावने अकूपारस्य' इति मन्त्रपाठव्यतिक्रमेणानुक्रमः । तेन ज्ञायते ऽन्यैरेवायम्नाषभिः समान्नायः समान्नातः अन्य एव चायं भाष्यकार इति । एको हि समान्नायं भाष्यं च कुर्वन् प्रयोजनस्याभावादेकमन्त्रगतयोः पाठानुक्रमं नाभद्यते । Roth¹ in his Introduction to the *Nirukta* draws attention in this connection to the famous passage साक्षात्कृतधर्माण ऋषयो बभूवुः...उपदेशाय ग्लायन्तोऽपरे विल्यग्रहणयेम ग्रन्थं समान्नानिष्टुर्वेदं च वेदाङ्गानि च which clearly proves that the निघण्डु was the work not of Yāska himself, but of ancient sages.

Following are the additional arguments to prove that the *Nighāntu* could not have been written by the author of the *Nirukta*.

(1) The *Nirukta* opens with the passage समान्नायः समान्नातः स च व्याख्यातव्यः । तमिमं समान्नायं निघण्टव इत्याचक्षते (p. 4 & 5). The expression आचक्षते clearly shows that the समान्नाय was called निघण्टवः by others. If Yāska had been the author of the निघण्डु, he could not have written that his work received its name from others. Similarly the

¹ P. 4. Translation by Dr. Mackichan, Bombay University.

first half of the passage shows that Yāska is going to explain the समान्नाय which had been already compiled or authoritatively² collected before. The expression आचक्षते occurring in the following passages corroborates what has been said above. तथानि नामानि प्राधान्यस्तुतीनां देवतानां तैवतमित्याचक्षते (p. 95), तैकपदिकमाचक्षते (p. 267).

(2) The well-known passage साक्षात्कृतधर्माण कृययो बभूः ...ग्रन्थं समान्नासिपुर्वेदं च वेदाङ्गानि च proves the same.

(3) The निघण्डु includes तञ्चित् under अन्तिकनामानि (p. 200) and also under वधकर्माणः (p. 204). Following the निघण्डु Yāska remarks on p. 206 तञ्चितेत्यन्तिकवधयोः संसृष्टकर्म ताडयतीति सतः. But on p. 207 after giving शाकपूर्णि's view that तञ्चित् means विद्युत्, Yāska remarks that the meaning अन्तिक also would suit the passage द्वे निन् सन्तविद्वातिरोचसे the meaning being द्वेऽपि सन्तन्तिक इव सन्दर्शयसे इति. Yāska seems to regard अन्तिक as the proper meaning of तञ्चित्.

(4) On p. 204, seven roots are given under nouns व्याप्तिकर्माणः by the निघण्डु. The list includes two nouns आक्षाणः आपानः as Yāska himself remarks तत्र द्वे नामनी आक्षाण आश्ववान् आपान् आप्नुवानः. Apparently the निघण्डुकार misook these two for roots and Yāska draws our attention to the discrepancy.

(5) Similarly on p. 204, the three words वियातः, तञ्चित् and आखण्डल, though nouns, are wrongly put in the list of वधकर्माणः.

(6) On p. 213, in the list of महामानि, two roots ववक्षिथ and विवक्षसे are wrongly put. Yāska obviously would not have made such a mistake.

(7) On p. 217 in the list of पश्यतिकर्माणः, two nouns विचर्यणः and विश्वर्यणः are included, Yāska himself remarking नामान्यामिश्राणि.

² Dr. Bhandarkar in his article on the Mandasor Inscription JBBRAS. P. 913 gives this as the meaning of समान्नात्.

(8) In the एकपदिक section, the निघण्ड gives the word मेहना (p. 275). Yāska explains it as महनीय and proposes an alternative explanation that it might be split up into मे इह न, three different words. Yāska would not have included this word in the एकपदिक section as he does not regard it as one word in the alternative explanation. Similarly on p. 323 Yāska seems to regard शंयोः as made up of two words.

(9) On p. 286, commenting upon शिष्रे Yāska says शिष्रे इति उपरिष्टात् व्याख्यास्यामः and explains it under सुशिष्रे (p. 488). Yāska would have included only one of these words in the text rather than giving the two similar words in two different places and then referring one to the other.

(10) Similarly on p. 361, he says हासमाने इति उपरिष्टात् व्याख्यास्यामः, on p. 371 वक्षो व्याख्यातम्, on page 431, परिसीमिति व्याख्याताः. Yāska would not have included the निपातः, परि, ईम्, सीम्, which he explains in his introduction.

(11) (P. 306) The निघण्ड gives दावने अकूपारस्य, while the Vedic order is अकूपारस्य दावने and Yāska follows that order. If he had been the author of the निघण्ड, he would have corrected the order easily. This is the only place³ where the निघण्ड does not follow the order of the Rgvedic passage. The following list of consecutive words in the निघण्ड occurring in one and the same passage, keeps up the original order विद्धे, दुपदे (p. 293); वाहिष्ठो, दूतः (p. 347); कुटस्य, चर्षणिः (p. 422); अनवायम्, किमीदिने (p. 469); शुष्ठी, पुरंधिः (p. 474); चनः, पचता (p. 484); सदान्वे, शिरिविठः (p. 524).

(12) On p. 357, in the एकपदिक section we have सोमो अक्षाः. Durga remarks upon this that the word सोम is

³ On p. 380 शिपिविष्टः, विष्णुः are given. Possibly this is also a case of inverted order. The passage has...विष्णोः...शिपिविष्टस्य

put in for the better understanding of the मन्त्र (मन्त्रस्य प्रतिपत्त्यर्थं सोमशब्दः समानात् इति), but this is hardly satisfactory. The difficult word is अक्षः only; Yāska does not explain सोम at all.

The two words शिपिविष्ट and विष्णुः are given on p. 380; Yāska does not explain विष्णु. Of देवो देवाच्या कृपा on p. 465, Yāska does not explain देव at all. If he had been the author, he would not have put in देवो at least in the above expression.

On p. 425 तृतुमाकृष्णे occurs in the निघण्डु as one word. Yāska explains it as तृष्णमुपाकृष्णे. The difficult word is तृष्णम् which only ought to have been included in the निघण्डु. The निघण्डुकार seems to have regarded तृतुमाकृष्णे as one word.

On p. 402, कौरयाणः and तौरयाणः are included in the निघण्डु. As they are similar in formation Yāska would have given only one of them.

On p. 433, आशुशुक्षणिः occurs as one word. Yāska explains it in various ways. He takes आशु and शु to mean क्षिप्र and separates the two words from क्षणिः according to one explanation.

On p. 480, the words असूते सूते should not have been given separately.

(13) In explaining the list of difficult words in the 4th Adhyāya of the निघण्डु, Yāska has offended the first three lists; thus: —He gives a meaning to certain words in the 4th Adhyāya but these words are not included in the first three Adhyāyas under these meanings.

(a) Thus on p. 359 he says शात्रमिति क्षिप्रनाम, but शात्रं is not included in the list of 26 क्षिप्रनामानि (p. 199.)

(b) On p. 375, he says शुन्नं...अन्नं वा, but शुन्नं is not included in the list of 28 अन्ननामानि (p. 194).

(c) On p. 407, he says तृष्णशमुदकं भवति, but तृष्णशम् is not included in the list of 100 उद्कनामानि (p. 159-60).

(d) On p. 417, he says कृतिः...अन्नं वा, but कृतिः is not included in the list of 28 अन्ननामानि (p. 194).

(e) On p. 423, he says शम्ब इति वज्रनाम, but शम्ब is not included in the list of 18 वज्रनामानि (p. 208).

(f) On p. 474, he says शुद्धीति क्षिप्रनाम, but शुद्धी is not included in the list of 26 क्षिप्रनामानि (p. 199).

If Yāska had been the author of the निघण्डु, he would have included these words in the lists in the first three Adhyāyas, not in the fourth.

There are again to be found in the fourth अध्याय of the निघण्डु certain words which have been already included in the lists in the first three अध्यायस. If Yāska had been the author of the निघण्डु, he would not have put these words in the 4th अध्याय of the निघण्डु, as their meanings are already known from the first lists. For these words see II below.

It will be seen from the above, that there is conclusive evidence to prove that Yāska could not have been the author of the *Nighaṇṭu*.

II

Nor does the *Nighaṇṭu* seem to be the work of only one author. Thus for instance, the author of the second section of the fourth Adhyāya of the *Nighaṇṭu* is clearly different from the author of the first three Adhyāyas, as shown from the fact that the second section of the fourth Adhyāya gives certain words, the meanings of which have already been given in the first three Adhāyas.

Thus अन्धः IV. 2.6, वराहः IV. 2.21, स्वसराणि IV. 2.22, शर्याः IV. 2.23, सिनम् IV. 2.28, वयुनम् IV. 2.48, are already explained in II.7.1, I.10.13, I.9.5, II.5.5, II.7.8, III.9.10

respectively. It is clear therefore that the author of the second section of the fourth Adhyāya was not aware of the first three Adhyāyas.

Similarly the author of the third section of the fourth Adhyāya must have been different from the author of the third section, as the word दूतः which occurs in IV. 2.3 is repeated again in the third section IV. 3.99.

The author of the first section of the fourth Adhyāya must be different from the author of the third section of the same Adhyāya, as शिष्रे occurs in IV.1.11 and a similar word मुशिप्रः is repeated again in IV.3.72.

In the fourth Adhyāya of the निघण्डु, there are eight pairs of consecutive words occurring in the same R̄gvedic passage, out of which (1) Two occur in IV.1. दावने अकूपारस्य IV.1.32,33 and विद्वधे दुंपदे IV.1.18,19, (2) Two occur in IV.2, वाहिष्ठः दूतः IV.2.2.3 and कुटस्य चर्षणिः IV.2. 70,71 and (3) Four occur in IV.3 अनवायम्, किमीदिने IV.3. 43, 44 श्रुष्टी, पुरन्धिः IV.3.50,51. चनः पचता IV. 3.64.65, सदान्वे शिरिविठः IV.3.119,120. In the case of the first section, the exact words occurring in the passage are taken, though the order is changed in the case of दावने अकूपारस्य. In the case of the second section वाहिष्ठो...दूतो in the passage is reduced to its original वाहिष्ठः and दूतः:

But in the case of the third section, while अनवायम्, किमीदिने, and चनः, पचता are taken unchanged, श्रुष्टी पुरन्धिः and सदान्वे शिरिविठः, are substituted for the श्रुष्टी पुरन्धिम् and रुदान्वे शिरिविठस्य of the original passage. If one can keep in tact दावने अकूपारस्य in IV. 1, one fails to understand why शिरिविठस्य should lose its genitive or पुरन्धिम् its accusative. It is clear therefore that the third section must not have been produced by the author of the first section of the 4th Adhyāya.

तत्त्वित् is taken once as a noun II.16.1, and once as a verb II.19.21.

THE NIGHANTU AND THE NIRUKTA.

BY SIDDHESHWAR VARMA.

What is the *Nirukta*? This expression may be considered from two aspects, the *Nirukta* as a book, and *Nirukta* as a subject. What is the *Nirukta* as a book? This question is anticipated and answered by the word *vyākhyātavyah* occurring in the very first line of the *Nirukta*. This word *vyākhyātavyah* means to be explained. For, the central idea of the word *Nirukta* is also explanation, derived as it is from the verb *vac* with the prefix *nir*, to explain. In this sense of explanation, the expression *Nirukta* first occurs in the *Chāndogya Upaniṣad* viii-3-3, where it is said about the heart as well as the soul:—‘This soul is present in the heart (हृदि), and this also is the explanation (*niruktam*) of ‘हृदय’’. The *Nirukta* as a book, is therefore an explanatory commentary on the work which Yāska calls the *Samāmnāya*, but which is more commonly known as the *Nighaṇṭavah* or simply the *Nighaṇṭu*.

The *Samāmnāyā*, the *Nighaṇṭu*, of which Yaska's *Nirukta* is a commentary, is the name of a Dictionary of 1765 Vedic words in five chapters with this reservation, however, that we consider even the *phrases* in *Naighaṇṭuka*-13, as words, for the phrases merely illustrate the particles of Analogy as *iva*. Of these 1765 Vedic words, 350 words have been explained by Yāska in his *Nirukta*, as Devarāja says “नैघण्टगतेऽवेव पदेष्वध्यधशतत्रयमात्रांणि पदानि भाष्यकारौ तत्र तत्र निगमेषु प्रसंगात् निरुक्तानि” in the introduction to his own commentary on the *Nighaṇṭu*.

The *Nighaṇṭu* has three sections, the *Naighaṇṭuka*, the *Naigama* and the *Daivata*.

The *Naighaṇṭuka* section corresponds more to the

modern Dictionary than the other sections, for it enumerates in three chapters some 1336 synonymous words, while the latter merely give obscure or important Vedic expressions, *without explaining them* or referring to their equivalents. The arrangement of these words is based neither on the alphabetical system nor on any distinct classificatory system.

The first chapter of this section consists of words mostly expressing some phenomenon in Nature, like the earth, the cloud etc. The second chapter enumerates words concerning human and animal life, *i.e.* names of man and beast, etc. The third chapter consists of abstract terms—as synonymous words for happiness, truth and also ritualistic terms. The whole section consists of 843 nouns, 365 verbs, and 128 adjectives and particles.

The second section designated the Naigama section (from Nigama-Vedic text) may be called a "Homonymous lexicon," as it consists of 278 single, obscure words from the text of the Vedas.

In the third section designated Daivata 151 Devatas of the various Vedic Mantras have been enumerated and classified according to their three domains—the Earth, the Atmosphere, and Heaven.

It is important to note in this connection that our *Nighāntu* is the most ancient of extant lexicons in India. The most common designation for a lexicon in Sanskrit is Kośa, literally a treasure; the complete designation is 'Abhidhāna Kośa', or simply 'Abhidhāna' (name). The word Abhidhāna, as an abbreviation of Abhidhāna Sāstra (Lexicography) is employed to designate the whole Literature of this type, e. g. in the notices of Sanskrit manuscripts in the Calcutta Library. Other, and probably more ancient names of lexicons

are.:—Nāmapārāyaṇa, Nāmamāla (mālā also); as *Amar-mālā*, *Desināmamālā*; finally *Nighaṇṭu* also written *Nirghaṇṭu*, *Nirghaṇṭa*¹ (probably due to wrong reading of MSS.), and in Jaina-prākrita, *Nigghaṇṭa*.

According to the eminent lexicographer, Hema-candra, *Nighaṇṭu* means a collection of names (निघण्डुर्नाम-संग्रहः), while Sāyaṇa in his introduction to the R̥gveda defines the term *Nighaṇṭu* thus : “एकार्थवाचिनां पर्यायशब्दानां संघो यत्र प्रायेणोपदिश्यते, तत्र निघण्डुशब्दः प्रसिद्धः, तादृशेष्वमरसिंह-वैजयन्ती-हलायुधादिषु दशानिघण्टव इति व्यवहारात्”. The term, however, is generally applicable, not only to a vocabulary or any list of synonymous words, but also to any exhaustive and classified catalogue of technicalities and properties of things. Thus in Sanskrit medicine, there are several books styled the *Nighaṇṭus*, e. g. *Rājani-ghaṇṭu*, *Rājavallabhanighaṇṭu*, *Nighaṇṭuratnākara*, *Madanapālanighaṇṭu*, etc. The *Madanapālanighaṇṭu*, to quote only one example, gives the properties and names of all drugs (सर्वैषधिनामगुणानां निघण्डः). Again in Sanskrit Astronomy we have *Jyotiṣasāstra-Nighaṇṭu*, a work which indicates the names of seven famous Astronomical categories, the lunar mansions, etc. Hence the word *nighaṇṭu* has acquired a significance as wide as the word Dictionary in modern times though the method of the *Nighaṇṭu* is much briefer than that of the Dictionary. It is indicatory rather than explanatory.

The place of our *Nighaṇṭu* is unique in Sanskrit Lexicography. As we have already stated, the *Nighaṇṭu* is the oldest of extant lexicons in India; and it differs essentially from the later works on Lexicography in contents, form, and object as under.

(a) In our *Nighaṇṭu*, not only nouns and indecli-

1 cf. Monier-William's Dictionary on *Nirghaṇṭa*.

nables, but also *verbs* have been enumerated. Not so the later Kośas.

(b) The *Nighāntu* merely enumerates its words in prose order; but the later Kośas are all metrically composed, the usual metre being Anuṣṭubha and sometimes Āryā also.

(c) Our *Nighāntu* is a *sacred*-book, as its object, fully treated in the *Nirukta* 1. 6. 5, is to serve as a key to the explanation of Vedic texts. As Herr Zachariae *Die Indischen Wörterbücher* p. 3, says, the glossaries of the *Nighāntu* must have served as practical guides to the Vedic teacher for oral instruction, as we can infer from the fact that in the Naigama section of the *Nighāntu*, single words from Vedic texts have been enumerated, while their meanings have not been given at all.

But the later extant works on Sanskrit Lexicography are mostly nothing else than collections of important and rare words for the use of poets. Thus the Abhidhāna Kośa is styled one of the "auxiliary branches of Kāvya" (Kavyāngāni) and often the later Lexicographers sufficiently emphasize, in the introduction to and conclusion of their works, that they write for the poets. Compare phrases as "for the sake of adorning the throat i.e. the voice) of the poet" (Halāyudha); "the ornament of good poets" (Vaijayanti), "with good wishes for poet- (Dhanañjaya), "for the happiness of poets" (Dharanikosha) These aims are professedly secular. The only later (lexicon that resembles our *Nighāntu* in its object and contents is the *Mahāvyutpatti* of the Buddhists. It enumerates not only synonyms, but also phrases, verbal forms and even whole sentences. And just as the words of the *Nighāntu* directly refer to the sacred texts of the Vedas, so the *Mahāvyutpatti* is directly related to the Sacred Works of Buddhism.

Now what is the Samāmnāya, the very first word of the *Nirukta*? It has already been pointed out that here the Samāmnāya is what is more commonly known as the Nighantu. The word Samāmnāya, as Durga has explained it, is derived from the verb *mnā* to repeat, with the prefixes *sam* and *ā*, the whole word indicating passive sense, and so it means, 'That which is properly repeated according to the rules of tradition. In the same sense the word āmnāya is employed. The central idea of the verb *mnā*, connected as it is with the verb *man* to think, is to repeat mentally, i. e. to remember. Āmnāya would then mean correct repetition memoriter (Monier Williams). Thus this word signifies traditional knowledge,² handed down by teacher to pupil from generation to generation. The prefix *sam*, further added to the word āmnāya, indicates combination, collection. Thus the whole word Samāmnāya means traditional collection or compilation. Yāska himself, in a famous passage in the *Nirukta* 1.6.5, uses the verb *samāmnāśisuh*, in the sense of "compiled", while a much earlier work, the *Aitareya Āraṇyaka* III.2.3, uses Akṣarasamāmnāya in the sense of "collection of letters".

The word Samāmnāya, however, must be strictly translated here as "the traditional collection of *Vedic* words". We now come to another more general significance of the term Samāmnāya.

The terms Āmnāya and Samāmnāya are often used for the Veda. Thus according to the *Nāmalingānuśāsana*, the words Śruti, Veda, Āmnāya and Trayī are synonymous for the Veda. Further, both Āmnāya and

² Cf. *Vācaspatyam*—“आम्नान्ध्रं सम्यग्म्यासे सम्यक्पाठे च। आम्नायः—अन्यासस्य सम्यक्त्वत् च नियमधारणपूर्वकत्वं—गुरुमुखश्ववणपूर्वकत्वम्” and *Sabdakalpadruma*—“गुरुपरेपरोपदेशः”

Samāmnāya are synonymous terms for the Veda, as Nāgeśa on 'iti Māheśvarāṇī' says in his *Laghusabden-dushekha*. In the famous Sūtra of the *Pūrva Mīmāṃsā* 1-2-1, 'The purpose of the Veda (*Āmnāyasya*) being to lay down actions &,—the term Āmnāya clearly means the Veda. In the same sense the word Samāmnāya has been employed in the *Pūrva Mīmāṃsā Sūtra* 1-4-1, 'It has been explained that the Veda (Samāmnāya) pertains to actions'. . And our own Yāska, when defending the relevance of such Vedic passages as 'O axe, do not kill' I-16-6, says that harmlessness appears from the explicit word of the Veda (*Āmnāya*). Again while refuting the view that Vaiśvānara means "Sūrya", Yāska says that the descent after ascent can be attributed to Vaiśvānara also by the explicit words of the Veda (*Āmnāya*), vii-2,4-2. Veda, then, is the general significance of the term Āmnāya or Samāmnāya.

We have seen above that the special as well as the central implication of this term is "traditional knowledge" that is handed down by teacher to pupil from generation to generation. It is true that various forms of secular knowledge in India have also been handed down by tradition, but these sciences have been modified or improved upon from time to time by various individual teachers. It is the Veda which is the traditional knowledge par excellence, the minutest syllables and accents whereof have been handed down unchanged from time immemorial. Hence the Veda is appropriately called "Śruti" (hearing). The term Samāmnāya, then, equally suits the Veda, and the Veda, therefore, is the primary meaning of the term Samāmnāya.

But there is also a secondary significance of the term Samāmnāya. By analogy, any form of traditional

knowledge, especially auxiliary sacred knowledge, can be called Samāmnāya. Thus, as Durga says, the collection of Vedic words called the *Nighaṇṭu* can also be designated the Samāmnāya, because these words have been taken from the Veda; and consisting as it does of portions of the Veda, it has acquired thereby the characteristics of the Veda. Even Yāska includes all the Vedāṅgas under the word Samāmnāya in *Nirukta* 1-6-5, where the sages are said to have compiled (Samāmnāsiṣubh)³ the Veda and the Vedāṅgas. Further, not only the Sanskrit alphabet⁴ given by Pañini has been called the Samāmnāya, but the term has been extended even to works on the Drama. Thus, according to Pañini IV. 3-129, the suffix *ṇya* is to be added to the word *naṭa* in the sense of duty or traditional knowledge (Āmnāya). Hence the word *Nāṭya* is formed, and it means "the duty or traditional knowledge of actors." The secondary significance, then, of the word Samāmnāya is any 'sacred or honoured work'.

No doubt the central idea in this secondary significance of the word Samāmnāya is the same, viz. traditional knowledge, but in this case the term, which primarily denoted the Veda, has been secondarily extended to other forms of traditional knowledge also.

The above discussion gives us three meanings of the word Samāmnāya :—(1) Its literal meaning, viz., 'traditional compilation,' (2) Its primary meaning, viz., 'the Veda,' (3) Its secondary meaning, viz., 'any sacred or honoured work.' I am of opinion that the word

3 In the introduction to his commentary, cf. "छन्दोभ्यः समाहृत्य समान्नाता सेषा छन्दोऽव्यवभूता छन्दोधर्मिण्येव"

4 "समाज्ञासिपुर्वेदं च वेदाङ्गानि च।

5 "येनाक्षरसमाज्ञायमधिगम्य महेश्वरात् । कृत्स्नं व्याकरणं प्रोक्तं तस्मै पाणिनये नमः"

"छन्दोगौरिथक्याश्चिकवच्छुचनटाभ्यः । नदानां धर्मे आज्ञायो वा नाव्यम्"

Samāmnāya as given in the first line of the *Nirukta* implies all the meanings that the above discussion has shown. The first and the second meanings help us to translate the word Samāmnāya as, the 'traditional collection of *Vedic* words,' the adjective *Vedic* being supplied by the second meaning, as I have shown above. The third meaning is important, as it throws considerable light on the relation of the *Nirukta* to the *Nighāntu*.

This third meaning of the word Samāmnāya, by which we understand 'sacred record handed down by traditional knowledge', decidedly proves that Yāska was not the author of the *Nighāntu*. We should, therefore, receive with considerable caution and reservation Sāyaṇa's remark in his introduction to *R̥gveda* which identifies the *Nighāntu* with the *Nirukta*, viz., 'Nirukta is a work where a number of words is given, without any intention to connect them in a sentence.' Thus he designates the above-mentioned catalogue of words—the *Nighāntu* or the Samāmnāya—with the title *Nirukta*. But it must be now clear that the essential idea of the *Nirukta* is *explanation*, and it is this explanatory commentary on the *Nighāntu* which is to be strictly known as the *Nirukta*; while Yāska calls the *Nighāntu* as Samāmnāya. Sāyaṇa's mistake is thus well explained by Max Müller in HASL 79, when he aptly remarks, 'As he preserved them by his commentary, it was natural that its authorship, too, should be ascribed to him.'

Moreover, ancient tradition ascribes the authorship of the *Nighāntu* not to Yāska, but to Kāśyapa. Thus the *Mahābhārata* :—

“ वृषो हि भगवान् धर्मः ख्यातो लोकेषु भारत ।
निघण्डुकपदाख्येन विद्धि मां वृषमुत्तमम् ॥

कपिर्वराहः श्रेष्ठश्च धर्मस्थ वृष्ट उच्यते ।
तस्माद् वृषाकर्पि प्राह काश्यपो मां प्रजापतिः ॥

Here, then, the sage Kāśyapa has been referred to as the author of the *Nighaṇṭu*. And although it is extremely difficult to give any definite and accurate details about the personality of this Kāśyapa, the allusion suffices to confirm the view that Yāska was *not* the author of the *Nighaṇṭu* or the *Samāmnāya*. His work was to edit, and to *explain* (*vyākhyātavyah*) the *Samāmnāya*.

AVESTA.

EREKHSHA THE ARCHER AND HIS ARROW.

BY B. T. ANKLESARIA.

The Avesta Tistar Yast, whilst describing the speed of Tistri in its progress towards the ocean Vourukasha, introduces the story of "Erekhsa, the swift archer, the swiftest of Aryan archers," and of "the arrow which he darted from the mountain Khshuth to the mountain Khvanvat."

Albiruni gives the same legend with further details in his *Athārul Bākiya* whilst explaining the origin of the Tīragān feast of the Zoroastrians observed by the Parsis from times immemorial on the day Tir of the month Tir.¹ According to him, the arrow was shot by a noble, pious and wise man named Arish at the order of the Pīsdādian king Minōchihr while he was being besieged by Afrāsiāb in Tabaristān. Arish "bent the bow with all the power God had given him ; he shot the arrow and fell asunder into pieces. By order of God the wind bore the arrow away from the mountain of Rūyān and brought it to the utmost frontier of Khurāsān between Farghāna and Tabaristān ; there it hit the trunk of a tree that was so large that there had never been a tree like it in the world. The distance between the place where the arrow was shot and that where it fell was 1000 Farsakh."

Firdausi² in his *Sāh-nāmah*, refers in three places to 'Arīs' and in one place to his 'arrow.'

According to the Mojm̄el al-Tawārīkh Arīs sīwātīr

¹ Albiruni's *Chronology of Ancient Nations*, Ed. Dr. Sachau, (1879), p. 205.

² See "Le livre des Rois par Abou'l-Kasim Firdousi, publ., trad. et commenté" par M. Jules Mohl. (1838-1878), Vol. 6, p. 178, l. 236 ; Vol. 7, p. 36, l. 378 ; Ib. p. 382, l. 324 ; Vol. 4, p. 408, l. 586.

is an ancestor of the Sassanian hero Bahrām Chūbīn³.

Tabari refers to "the arrow of Arissātān in the battle between Manōchihr and Frasijāt" and to "Aris, the ancestor of Bahrām"⁴.

Nöldeke established the identity of the Avestan Erekhs̄ha with the Persian Aris in an Article published in the *Zeitschrift der Deutschen Morgenlandischen Gesellschaft* (1881, p. 445 sq.)⁵.

The Avestan 'erekhs̄ha' can be equated with the Sanskrit *riksha*, but the counterpart of the Avestan legend has not as yet been found from the Sanskrit Literature.

If we turn to the Greek mythology we find Heracles, the oldest and most illustrious of all heroes in the mythology of Greece. Heracles was the son of Zeus by Alcmēnē, the wife of Amphitriyon, whose form the god assumed while he was absent in the war against the Tēlēbōi. On the day on which he should have been born, Zeus announced to the gods that a descendent of Perseus was about to see the light, who would hold sway over all the Perseidæ. The child grew up to be a strong youth, and was taught by Eurytus to shoot with the bow, and by Castor to use the weapons of war. Amphitriyon, alarmed at his untamable temper sent him to tend his flocks on Mount Cithærōn. The Delphic oracle commanded him to enter the service of Eurystheus king of Mycēnae and Tīryns and perform twelve tasks which he should impose upon him. The poet Pisander of Rhodes first

³ See *Extraits du Modjmel al-tewarikh* trad. par M. Jules Mohl in *Journal Asiatique*.

⁴ See *Geschichte der Perser und Araber zur zeit der Sasaniden, aus der Arabischen Chronik des Tabari*, von Th. Nöldeke (1879), pp. 271, 279.

⁵ See also *Études Iraniennes par James Darmesteter*, Tome II, pp. 220-221.

armed the hero with the club and the skin taken from the lion of Cithærōn. Heracles was previously represented as carrying a bow and arrows. Of the twelve labours of Heracles, which need not be recounted here, the tenth contains the legends of Heracles aiming his bow at the Sun-god, who marvels at his courage and gives him his golden bowl to cross the Ocean in, and of his dreadful struggle with the Ligyēs when his arrows were exhausted and he had sunk in weariness upon his knee, Zeus rained a shower of innumerable stones from heaven with which he prevailed over his enemies⁶.

From the long extract quoted from Nettleship and Sandys we have to note the points of comparison between the Avestan and the Greek legends:—

1. The Avestan archer 'Erekhsa' is to be equated with 'Heracles.'

2. The ocean *Vourukasha* whereto the star Tistrya moves might be the *Ocean* Heracles crossed in the Golden Bowl.

3. The mountain Khshaotha from where the arrow was darted by Erekhsa might be mount Cithæron.

We have further to trace the origin of the Northern Constellation Heracles, so well-known after the Greek hero for whom so many legends are interwoven in the Hellenic mythology.

Robert Brown, Jun., in his *Researches into the Origin of the Primitive Constellations of the Greeks. Phœnicians and Babylonians*, tries to prove that "Influences Sumero-Akkadian, Babylonian, Assyrian, Hittite, Phœnician, not to mention those of Egypt, are

⁶ Taken from *Dictionary of Classical Antiquities*, by H. Nettleship and J. E. Sandys (1899).

now allowed by all competent students to have⁷ made themselves felt in Hellas, borne on the wings of conquest, commerce and colonization.”

He further says that “the Greeks received the constellation names, and nearly all the stories connected with them, not from any savages but from the highly civilized Phœnicians, who, in turn, like the ancient Arabians, had obtained many of these names from the archaic civilization of the Euphrates Valley.”⁸

Eudoxos of Knidos (cir. B. C. 403-350) mentioned in his work the *Phainomena* the primitive constellations of the Greeks. The treatise was afterwards versified by the poet Aratos, (Cir. B. C. 270), and Brown (Jr.) maintains that the “statements of Aratos in reference to the principal stars near the equator, exactly agree with the actual state of things at the vernal equinox, B. C. 2084, a date when the Euphratean formal scheme or chart of the heavens had been already completed.”⁹

Whilst giving a description of the Northern Constellation of ‘The Kneeler,’ Brown notes (p. 34) that “this constellation is Euphratean in origin and was known as (Ak.) *Lugal*, (Bab.-As.) *Sarru* (‘the King’). It originally represented the kneeling Sun-god, sometimes overcoming the Lion, sometimes shooting at the Demon-birds. Adopted by the Phœnicians, it became *Melqārth-Harekhal* (*Hēraklēs*), and is reproduced on coins.” On p. 199 of his work, describing the coin-types, he gives the description of the figure of “*Hēracles* naked, kneeling and discharging Arrow ; Club on the ground behind him, before him two Birds” and again on p. 234 : “*Hēraklēs*, naked, running, holds *Lion*-

7 Vol. I, p. 2.

8 Ibid. p. 4.

9 Ibid. p. 15.

skin and *Bow* and strikes with *Club*, *Bow* and quiver."

From these notes it will be seen that whereas the Avestan *Erekhsa*, just like the Phœnician *Harekhal*, Hēraklēs, holds a bow in his hand and discharges the *arrow* whilst kneeling, the story of the two birds that are shot by Harekhal and of the *Lion-skin* on the naked body of Harekhal and of the Club cannot be traced in the Avestan literature.

The *Arrow* supposed to be shot from the bow of the *Kneeler* among the *Birds*, seems also to have been placed as a constellation of the Northern Hemisphere by the Phœnicians as *Khaits*, (the arrow) betwixt *Nesher* (the Eagle) and *Nakhir* (the Dolphin).¹⁰

Although we do not find in the Vedic astronomical myths, an archer named ṛksa, who darted his heavenly arrow at any bird, we find in the R̥gveda Sūkta VI (XXVII) the story of Krśānu the archer, pursuing with the speed of thought the hawk on his descent from heaven carrying away the Soma, stringing his bow and letting fly an arrow against him.

Summary :—It is possible with a further study of comparative mythology to prove that the myth of Heracles and his arrow, so well-known to the Greeks, which is rightly supposed by Robert Brown (Jr.) to have been derived from the Phœnician myth was originally existing in the home of the Aryans when the forefathers of the Vedic and the Avestan people were living together as one united community. The name of the Hellenic archer is traceable to the Avestan name but the Vedic name is quite different; not only does the name differ, but the legend too seems to be based on a separate structure.

10 The Avestan Ere+kh+sh+a can be equated with the Phoenician (H)+are+kh+a+i. Cf. Av. Th+w+â+sh+a—Pahl. S+p+â+hr.

AIRYANA VAEJO, THE CRADLE OF THE
ARYANS, AND MĀZAINYA DAEVA,
THE DEVAS OF MAZANDRAN,
OR BRAHMANICAL DEVAS.

By J. D. NADIRSHAH.

Scholars have not as yet agreed as to the locale of the original home of the Vedic Brahmins, or even of the Aryan race, the stock, of which they were merely a branch. It is, therefore, desirable, to collect all the information direct or indirect, that can be found anywhere relating to them. With this view, all that I have come across in the Avesta and Pahlavi books about the cradle of the Aryans and the ancient home of the Vedic Brahmins is put together in this paper for the consideration of the Orientalists.

In V. I (*Vendidad* ch. I.) there is a list of sixteen specific districts describing the order in which they grew up one after another. These territories are apparently all situate in or about Persia, and no land known to be either of the Semetic or Tartaric race is included in the list which, therefore, seems to be a register of colonization only of some tribes of the Aryan race.

The land which, according to the list, flourished first is called Airyana Vaejo, Pahlavi Iran-Vej, signifying *the beginning or source of the Aryans*, from Av. Vaejo = Sansk. वैज् *beginning or source*. It is declared in V. I. 1, that were not the land absolute made enjoyable, the whole of the corporeal world would have come to Airyana Vaejo. The phrase Vañhuyāo Dāityayāo of the good Dāitya, is always added in the Zend-Avesta to the name Airyana Vaejo. The original

place is, however, said to be excessively cold, having a winter of ten months, and a summer of two (V. I. 3-4). Here, the commentator notes that the winter is known to be of seven months and the summer of five. Notwithstanding the excessive cold the place is said to have become so overcrowded that, during the reign of King Jamshed's dynasty, the territory had to be extended thrice southward, each time at an interval of three-hundred years (V. II. 8-18).

From the above, one naturally concludes that the dynasty of Jamshed reigned for over 900 years. It must be noted here that the first King Jamshed, the founder of the dynasty, is called in the Avesta Yima Khshaeta, *Jamshed* the son of Vivañhat, Sansk. विवस्त् (Yasna IX. 4, 5) and his descendants Yima Vivañhana, *Jam of the family of Vivañhat* (V. II, 9). We are told in V. II. 21, that Ahura Mazda who was celebrated in Airyana Vaejo held a meeting with Yima Khshaeta (Jamshed), also celebrated in Airyana Vaejo, forewarned him of the approach of the world-wide destructive winter, and counselled him to build the Vara (*a fortified town*) on a sufficiently elevated ground in order to save select men, animals, and plants from destruction.

We also learn that King Haoshyanha, one of the predecessors of King Jamshed I, struck down two-thirds of the Devas of Māzandran and of the marauders of Varenja (Gilan) Yasht V. 21, XIII. 137, XV. 8; whereas Jamshed merely subdued all the countries of the Devas (Yt, V. 24). The latter story has a support in the fact that the Hindus have deified Yama, the son of Vivasvat.

It seems that the last king of this dynasty was murdered by Spityura, nicknamed Yimokerenta, *the murderer of Yama* (Yasna XIX. 46), and the empire

was overthrown by Azhi-Dahāka, Pers. Azhdhā Zahāk, of Babylonia (Y. V. 29). Wherever several personages are described in the Avesta as praying for help, they are mentioned in their chronological order. Thus we find in Y. V. 29, XV. 19, Zahāk next to Jamshed and then Thraetaona, Sansk. त्रैतन, Pers. Fraedun the son of Āthwya, Sansk. आप्त्य, Pers. Atbin, who killed Zahāk (Yt. IX. 8). Fraedun was born in Varenya (Gilan) and he killed Zahāk (V. I. 18. Yt. V. 33-35, XV. 23-25).

According to Yt. IX. 14. Zoroaster who was renowned in Airyana Vaejo, first proclaimed there the *Ahunavar*, the oldest Gathic stanza. It inculcates that the *Ratu*, the spiritual ruler, is on an equality with the highest temporal ruler and that he is the Viceroy of Ahura Mazda in this world. Zoroaster was the son of Pourushaspa (V. XIX. 6, Y. IX. 13.), on the sloping-side of whose house was the Darejya (V. XIX. 4). It was in Airyana Vaejo that Zoroaster prayed to Aban for help in converting to Zoroastrianism King Vishtaspa, the son of Aurvataspa (Lohrasp), Yt. V. 104-105; and to Gosh (Yt. IX. 26-27) and Ashi (Yt. XIII. 45-47) in converting Queen Hutaosā.

In V. XIX. 43-47 we find a concise record of the discussion of some Daevas of a plot for the destruction of Zoroaster. The names of the leading Daevas are given there. They are Indra, Sansk. इन्द्र, Sāuru, Sansk. शर्व and Nāonhaithya, Sansk. नास्त्य. All these Daevas are deified in the Vedas. They sent out some other Daevas to murder Zoroaster. But the mission failed.

From the above scattered records in the Zend-Avesta one can easily infer (1) that the territory of Airyana Vaejo was in the neighbourhood of Māzandran and Gilan, and not far from Babylonia; (2) that King

Yima, son of Vivañhat, and the prophet Zoroaster, were natives of it ; (3) that a fortified town Vara was built in it on a moderately elevated place ; and (4) that the house of Zoroaster's father was on the bank of the Darejya.

These give us some vague idea of the situation of the territory. The Pahlavi *Bundehashn*, however, mentions some definite landmarks of its whereabouts. It tells us :

- (a) Iranvej, in the side of Adarbāijan ; M. B.¹ 82.
- (b) Varjamkart of Iranvej ; M. B. 80. It is here mentioned as one of the chief places of Khaniratha, the most renowned of the seven divisions of the world.
- (c) Zoroaster when he brought the religion first proclaiming it in Iranvej ; M. B. 92.
- (d) The Dātyak river goes out from Iranvej and enters into Gorjastan (Georgia) ; M. B. 60.
- (e) The Tort river, which is also called Koiri (the Kur) starts from the Black sea and pours into the Caspean ; M. B. 61.
- (f) The Daraja of Iranvej in the basin of which was the house of Pourushasp, the father of Zoroaster ; M. B. 62.
- (g) The Daraja River is a rivulet. Here there was the house of Zoroaster's father in the basin. Zoroaster was born there ; M. B. 68.

We thus see that Iranvej was in Adarbāijan, contiguous to Georgia ; that the Vara built by Jamshed was one of its chief cities ; that of the two rivers passing through Georgia viz., the Kur and the Aras, the latter

¹ M. B., the Pahlavi *Bundehashn* edited by the late Mr. Maneckji Rustomji Unwala.

represents the Dāitya of the Zend-Avesta ; and that the Darejya was in Iranvej.

From the above accounts we come to the conclusion that the ancient Airyana Vaejo, as it extended during the regime of the Yimas, consisted of Adarbaijan stretched northwards as far as the Caucasus of which a considerable portion is always clad with ice and snow. It is, therefore, no wonder that the original Airyana Vaejo is said to be excessively cold. But, on the downfall of the Yima dynasty, the kingdom was naturally broken up. The commentator's remark in V. I. 4, noted above that 'the winter is known to be of seven months and the summer of five, indicates that latterly the northern portion, chiefly consisting of Albania (Shirvan)' was not included in Airyana Vaejo. It will not be out of place to quote here what Strabo says about Albania :—

"Perhaps such a race of people (the Albanians) have no need of the sea, for they do not make a proper use even of the land, which produces every kind of fruit, even the most delicate, and every kind of plant and evergreen. It is not cultivated with the least care; but all that is excellent grows without sowing and without ploughing, according to the accounts of persons who have accompanied armies there, and describe the inhabitants as leading a Cyclopean mode of life. In many places, the ground which has been sowed once, produces two or three crops, the first of which is even fifty fold, and that without a fallow, nor is the ground turned with an iron instrument, but with a plough made entirely of wood. The whole plain is better watered than Babylon or AEgypt, by rivers and streams, so that it always presents the appearance of herbage, and it affords excellent pasture. The air here is better than in those countries. The vines remain

always without digging round them, and are pruned every five years. The young trees bear fruit even the second year, but the full grown yield so much that a large quantity of it is left on the branches. The cattle, both tame and wild, thrive well in this country." (*The Geography of the Strabo* translated by Hamilton and Falconer, B. XI. C. IV. § 4).

The name Airyana is still preserved in the Pers. "Arrān, a tract of country situated between the provinces of Azerbāijan, Shirvān, and Armenia"; and to Arrāa belongs the city of Maughān; (*vide the Geographical works of Sādik Isfahāni*, translated by J. C.). Maughān implies the country of the Maogs (Magi), a tribe to which belonged the prophet Zoroaster.

Latterly Airyana-Vaejo was called Media. It then included the district of Raghā, Gr. Rhagæ, Pers. Rae, which was also called Ragha Zarathushtri, *Ragha relating Zarathushtra* (Y. XIX. 18). Herodotus² informs us that "at an earlier period the Medes were all called Arians", and that "the Medes originally consisted of six tribes," one of which was the Magi.

About the Good Dāitya, now known as Aras, we read the following in the above-mentioned *Geographical Works of Sādik Isfahāni* :—

"Aras, a considerable river in the province of Shírvān: it rises in the mountains of Armenia, and is a fortunate or blessed stream, for, of the animals that happen to fall into it, most are saved".

The Darejya is now called the Darjai Rud or Karasu. It falls into the Aras.³

It starts from near the foot of the Savalan Dagh. The Persian dictionary *Burhane Qāte* writes about

² *The Geography of Herodotus* by J. T. Wheeler, p. 287.

³ *V. Phillip's New Series of Travelling Maps. Turkey in Asia; 38°43' N. and 47°25' E.*

the Savalan : It is the name of a mountain near Ardabil in Azerbaijan; it has been a resort of monks and ascetics before and after the spread of Islamism; so the Moghāns (Zoroastrians) have deemed it a blessed place as they used to take oath by it ”.

According to Strabo, Media was divided into two parts, one of which was called the Greater Media, and the other Atropatene Media ; the summer palace of the latter was at Gazaka (Tabriz), situated in a plain, and the winter palace in Vera, a strong fortress. Ecbatana (Hamadan) a large city was the capital of the Greater Media and contained the royal seat of the Median Empire. Here their kings passed the summer. Their winter residence was at Seleucia, on the Tigris, near Babylon (B. XI. C. XII. § 1-3). We, however, notice that the above Ecbatana is different from that mentioned by Herodotus. “ This was erected upon a mountain, and consisted of seven strong and lofty walls, each one rising in a circle within the other. The ground was of an easy ascent, and each inner wall displayed its battlements above the other. The outside wall was therefore the lowest, and was about equal in circumference to the city of Athens. The innermost wall was the highest, and within it was the king’s palace and also his treasury. The battlements of all these circular walls were of different colours. The first were white, the second black, the third purple, the fourth blue, the fifth bright red, the sixth plated with silver and the seventh or innermost one plated with gold. The people dwelt outside all round the walls ”. (*Geo. Hero.* p. 218).

Such is Herodotus’s extraordinary description of Ecbatana. The story of the seven walls is considered by Colonel Rawlinson to be manifestly a fable of Sabeian origin, the seven colours being precisely those employed by the Orientals to denote the seven great

heavenly bodies, or the seven climates in which they revolve. The hill of Takhti-Soleiman, which Colonel Rawlinson identifies with Ecbatana, rises one hundred and fifty feet above the plain, and its brow is still crowned with a wall thirty feet high, and having thirty-seven bastions in a circuit of a little more than three quarters of a mile.

"Media, as described by Herodotus, was generally level, but the region to the north of Ecbatana, and towards the Saspeires and the Euxine Sea, was very mountainous, and covered with forests, and abounding in wild beasts, yet including some pastures which were favourable to the grazing of cattle". This is the only passage in our author which will really assist us in discovering the territory to which he referred. Rennell supposes that Media Magna, or Irak Ajami, only is meant; He, therefore, identifies the Ecbatana of Herodotus with the site of the modern city of Hamadan. Colonel Rawlinson, however, contends that only Northern Media or Azerbaijan is meant, and that the site of Takhti-Soleiman represents the Ecbatana of Herodotus. It is certain that our author's description already quoted refers to northern Media, and there are mountains to the north of Takhti-Soleiman, but none to the north of Hamadan.

The Ecbatana of Herodotus appears to be the same as the Vera of Strabo, and the Vara of the Zend-Avesta. Vera and Vara represent the same place as is manifest not only from the similarity of the names but also from their description, each being, in olden times, a fortified city in Atropatene and a royal seat.

The Province of Raghā was turned in the time of Zoroaster into a patrimony or church estate and was therefore called Raghā Zarathushtri. We are told in

Y. XIX. 18, that the countries ruled by other than the Zarathushtri, *Zoroaster and his successors*, have five *Ratus*, viz., (1) the head of the house, (2) of the family, (3) of the district, (4) the king, and (5) the representative of Zoroaster; and that Raghā Zarathushtri has only four, omitting the king. This indicates that the country of Raghā, situated on the south of Mazandran, had become a stronghold of Zoroastrianism in the time of Zoroaster.

Having thus determined the site of Airyana-Vaejo, the cradle of the Arian race, it is not very difficult now to find the ancient home of the Vedic Brahmins who formed one of its several branches.

Before the advent of the prophet Zarathushtra all the Arians in and about Persia worshipped the twin gods,³ Mithra—Ahura-Berezat, the Vedic मित्र वरुण.

But on Zarathushtra proclaiming his religion which teaches that Ahura Mazda is the sole Creator of the Universe (Ib. P. 2), a strong constant enmity was raised between the partisans of Zarathushtra and the worshippers of the old deities. In the Vedas, these are called Devas, because they called their gods devas ; and those Asuras, because they called their God Ahura = Sansk. असुर. The word देव, Av. daeva was no doubt originally used by all the Arians in a good sense, as it radically signified *shining, illustrious*, and hence '*a god among men, a king, a deity*'. The Lat. *deus* and Gr. *Zeus*, which are akin to it, literally mean *the god*, like the Arabic *Allah*. By the way, it may be noted that like *Deva*, the Avestan *Ahura* also indicates a king (Yt. XIX. 77). Apte in his Sanskrit English Dictionary remarks under असुर, "In the oldest parts of the Rig Veda the term *Asura* is used for the supreme spirit and in the sense of

³ My paper on the Four Ahura Mazdas in the Avesta. Vol. VI, No. I of the *Journal of the Iranian Association*.

'god', 'divine'; it was applied to several of the chief deities such as Indra, Agni and Varuṇa. It afterwards, acquired an entirely opposite meaning, and came to signify a demon or an enemy of the gods". It is not surprising that Daeva is not used in its primitive good sense anywhere in the Zend-Avesta, as the whole of it was very bitter hatred between the Devas and the Asuras. An Asura is also called देवारि and देवशत्रु an enemy of Devas; इंद्रारि an enemy of Indra; करुर् an enemy of sacrifices, करुद्धित् hating sacrifices, and दैतेय. The last denomination seems to signify, *relating to the Dāitya and people of the country watered by the above-cited Dāitya River.*

Of Daevas, the Māzainya Daevas are specially mentioned in the Zend-Avesta.⁴

Who can they be? Māzainya means *relating to Māzana*. When Sansritized, Māzana becomes माहन which indicates 'a Brahmin'. Māzainya Daeva, therefore, originally signified the Brāhmanical Devas, the Devas of the land of the Brahmins. This leads one to think that the name Māzandran, the ordinary rendering of Māzainya, is the Persian for an obsolete Avestan word Māzindrana, the country of the Great Indra, who was called देवपुत्र and देवराज, the king of Devas. We thus see that Mazandran was the ancient home of the Vedic Brahmins and that it was situated to the north of Raghā Zarathus-hri, the stronghold of Zoroastrianism. It appears that the Devas of Māzandran could not long hold their own against the inroads of the Asuras, and therefore migrated to India.

It is now easy to understand why देवभाग implies 'the northern hemisphere (opposed to Asurabhāga, the southern hemisphere)'; and why we read in V. XIX. 1,

⁴ V. IX. 13; X. 16. Y. VXVII. 1; LVII, 32.

that Añhra-Mainyu comes from the north; in V. VIII. 71, that by the purification ceremony the Druj finally escapes and hides himself in the north; and in Yt. XXII, that on the third day after death, the soul of the pious reaches a place where he finds a fragrant wind blowing from the south (para 7), and the soul of the wicked a region where he gets striking wind blowing from the north (para 25). It is useful to note here याम्य which signifies 'relating or belonging to Yama, southern'.

From records in the Zend-Avesta and the Pahlavi *Bundehashu*, I have thus traced the site of Airyana Vaejo, the birthplace of the primitive Aryans to the south eastern foot of the Caucasus. It was gradually extended southwards during the regime of the Yama dynasty. Having determined this, it was not very difficult to show that Māzandran was the ancient home of the Vedic Brahmans. In ascertaining this I am much assisted by the original significations of the terms *Mazainya Daeva* and *Māzandran*, as also by the account of Indra Daeva in V. XIX, and by his different attributive names.

AITAREYA & AĒθRA.

BY I. J. SORABJI TARAPOREWALA.

The word *aitareya* is found in Sanskrit only as applied as the name of a special branch of Vedic Literature consisting of a Brāhmaṇa, an Āranyaka and an Upaniṣad. It has always been explained as being the name of a Ṛṣi, the reputed author of these works and this strange name has been derived by our ancient etymologists from the word *itara*. A legend is given that this great Sage was the son of "another woman," *itarā*, i.e., not the legally married wife of his father. Stung by this slight, he gave himself up to religious practices and ultimately left behind him a great name as the founder of a great Vedic School.

This legend is a very fine example of popular etymology, quite on a par with the other etymological explanations given in ancient Sanskrit works. Palpably the story is a later invention to explain the meaning of a word which has been forgotten, for the word has not been found in any other context.

In Avesta, however, we meet a word which appears to be a cognate. The word is *aēθrya* which with the compound word *aēθrapaiti* is found in several passages. These seem to throw a lot of light on our word *aitareya*.

There does not seem to be any doubt whatever as to the meaning of these words ; *aēθrya* means a pupil or a disciple (*Priester-schiiler* as Bartholomae puts it¹), and the compound *aēθra-paiti* means teacher, master, or spiritual guide (*Herr, Meister, der Priester*, according to Bartholomae²). Nairyosang in his Sanskrit version translates *aēθrya* by *śisya*.

It is remarkable that in most cases both the words occur together. *Aēθrya*, in fact, occurs by itself only in one passage, *miθr̥, m...framrviṣa aēθryanām* (praise aloud Miθra before the disciples), Yt. x. 119. In all the other passages the word is found with *aēθrapaiti*. The most notable of these are :

antarə aēθrya aēθrapaiti (between the teacher and the pupil), Yt. x. 116.

aēθrapaitinām aēθryanām naram nāirinām³ iða... fravašayō yazamaide (We worship here the Fravashis of the teachers and of the disciples.....both male and female) Yas. xxvi. 7.

The word *aēθrapaiti*, however, is more important from our point of view, because it embodies the original word *aēθra*, of which the master (*paiti*) is the Teacher. As to the meaning of this *aēθra* there seems to have been some doubt in the mind of Bartholomae. He posits a word *aēθra* which he renders by "a priestly school" (*Priester-schule*) or "Learning" (*Lehre*) and he notes the etymology as doubtful⁴. And for reasons which he does not give, he remarks that the explanation of Haug in the *Zend-Pahlavi Glossary*, p. 129, is worthless (*ohne Wert*). As a matter of fact Haug's explanation is quite correct and it has besides the great merit of being the traditional explanation.

In the first place the word *aēθrapaiti* survives among the Parsis to this day in the word *ervad* (Per. *herbad*), the name applied to priests. The word originally meant the master of *aēθra*. As to what this *aēθra* is, can be determined by a passage in the *Farvardin Yast*, (Yt. xiii. 105.)—*Māθravākahe Sāīmus-ōis aēθrapatois hamīδpatōis asaonō fravasim yazamaide*

3. It may be remarked in passing that Zoroastrianism never made any difference between the sexes as far as religious rites were concerned, 4. Loc. cit. 5. The change of *pati* to -*bad* or -*bad* is paralleled in Av. *maṇupaiti*, Parsi मुन्द.

(We worship the Fravashi of *Mθ̄aravāk* the son of *Sāimuz'i* the lord of *aēθra* and the lord of *hamiδ*). Now the word *hamiδ* reminds us directly of the Sanskrit word *samidh*, the fuel used for the sacred fire ; and hence naturally we should expect the *aēθra* to be connected in sense with the *hamiδ*. Darmesteter rightly following the tradition⁶ renders these words as " master of the hearth " and " master of the sacrificial log." Bartholomae needlessly renders *hamiδpaiti*⁷ as " master of assembly " and *aēθrapaiti* as " master of religious lore." The tradition, agreeing as it does with the Sanskrit word *samidh*, seems here to be the higher authority and we can therefore provisionally take *aēθra* to mean " the sacrificial fire."

In another verse of the *Farvardin Yašt* (Yt. xiii. 97) we have the mention of *Saēna* who is mentioned as *satōaēθrya*. Bartholomae in his Dictionary⁸ translates this as " having a hundred pupils " but, as Haug rightly remarks,⁹ " it would be against all common sense to suppose that the only remarkable fact known of him was, that he had for the first time a hundred pupils on this earth. Such an insignificant fact (great teachers in the Orient do not count their pupils by hundreds but by thousands and tens of thousands) nobody would have thought worth commemoration. The statement that he was the first *satōaēθryo* indicates that the *satōaēθryo* must be a title of great honour which but few did obtain. If we take it in the sense of ' one who has a hundred fire places,' i.e., one who has established a hundred places of worship or kindled a hundred sacrificial fires, then we have a fact which really deserved to be handed down to posterity. The Sanskrit term *satakratu* may best be compared ".

6. S. B. Evol. xxiii p. 200 (footnote). 7. Op. cit. 1777.

8. Op. cit., 1556. 9. Loc., cit.

A third remarkable point in this connection is the use of the word *aiwyāñhat* (in the sense of being under the charge of an *aēθrapaiti*) used in two places¹⁰ in connection with the word *aēθrapaiti*. This word refers to the investiture of the sacred girdle after which the boy (or girl) in ancient Irān went to the *aērpastastan* or the religious school under the charge of the *aēθrapaiti*. The close parallel to the Indian custom of the Brahmacārī going to his Teacher after the *upanayana* ceremony is evident and need not be given in detail. The Indian disciple's chief work was the tending of the fire and looking after the daily sacrifices in the house of his Guru, and of course in Irān where the cult of the Fire was so strong there was doubtless the same practice. This fact also tends to prove that the *aēθra* was originally probably the "hearth" or "sacred fire of the household."

Bartholomae rightly traces the word *aēθra* to an Aryan prototype **aitra*. The probable Sanskrit equivalent would be *अत्र or *एतर¹² and the meaning was very probably "the sacred fire." The Avestan word *ātar* is cognate as also *āθravan* and the Sanskrit अथवन् and possibly अत्रि are also cognate. Haug traces the word to the root *idh* to kindle and thinks that the Greek αἴθω (to burn) and αἰθρά (a clear sky, Aether) are cognates.¹⁴ He also says that the meaning of "pupil" was acquired by *aēθrya* "by a transference." Very likely the "pupils were trained to tend the fire hence the word came to be applied to them."¹⁵

10. Nirangistān II and 16. 11. *Wörterbuch*, 20. 12. Jackson, Avesta Grammer. § 55. 13. In Rv., II, 8. 5 the word अत्रि is used in the sense of fire and is thus explained by Sāyaṇa, although his etymology of the word is fanciful. 14 Loc. cit. 15. Loc. cit.

Hence the legend of *Itarā* goes back to its proper place as an example of popular etymology and the aitareya School of the Veda becomes, what it ought to be, "the lore of the sacred sacrificial fire." This conclusion, besides on the grounds referred to above, is amply borne out by the contents of the *Aitareya Brāhmaṇa*.

THE
AVESTAN ARCHANGELS & SANSKRIT DEITIES
A COMPARISON.

BY A. K. VESAVEWALA.

It has been proved by history and the Avestan and Sanskrit Studies that in times immemorial the forefathers of all the Iranians, Hindus and Europeans had a common home in Aryana Vaija and later on they separated themselves into different tribes and inhabited a greater part of the eastern, western and southern regions. The Aryana Vaija of those days was not the modern Iran (Persia) and it is not clearly known where this place was located, though it is recently supposed to be somewhere in the Arctic regions where all the Aryans appear to have stayed once. They seem at first to have been all united but afterwards they separated themselves owing to religious differences. The causes which led to their separation were mainly of a social, political and religious nature. The Aryan tribes, after they had left their original home which was in all likelihood a cold country, as we find it described in the second Fargard of the Vendidad, mostly led a pastoral life and sometimes cultivated some patches of land for their maintenance. In this state we find the ancient Aryan community throughout the earlier part of the Vedic period. Some of these tribes whom we may style the Iranians proper became tired of this nomadic mode of life and after having reached Bactria and the place between the Oxus and the Zaxxartes, seem to have forsaken the pastoral life of their ancestors and their brother tribes and become agriculturists. The religion

of these new tribes consisted at first in worshipping all the good elements of nature separately, while that of the old Aryans as opposed to the Iranians, was branded as a source of mischief by the latter tribe, because some of their Daevas presided over natural objects possessing evil qualities. The Ahurian religion of agriculture was instituted which separated thenceforth for ever from that of their Aryan brothers. The peculiar form of this Ahurian religion was mainly due to one great personage Spitama Zarathustra. The religion of Zoroaster taught the worship, not of many gods, but only of the one true god Mazda (Mazdayasna as opposed to Daevayasna). The founders of this Ahurian religion first introduced agriculture and made it a religious duty and commenced war against the Daeva religion. The struggle had begun for many centuries even before Zoroaster, but it can never be doubted that he gave a finishing stroke to their idolatry and separated the contending parties from one another completely. He applied the term Ahurmazda to God and hated the Daeva-worshipping religion by distinguishing his religion as Vi-Daeva i. e. "opposed to the Daevas." Thus these two tribes separated, but both of them kept the names of their angels and heroes permanent in order to show their respect and reverence for them and so we find similar names both in the Avesta and the Vedas, as the Avesta *Mithra*, Sansk. *Mitra*; and Avesta *Verethraghna*, Sansk. *Vrtrahan*; Avesta *Haoma*, Sansk. *Soma*. They are all depicted as good in both the scriptures, whilst the Danu tribe plays an evil part in either. With respect to the other names, though some are to be found in the scriptures of both the communities, still they do not stand in the same light, i. e. those that are represented as good in the Avesta are reckoned as evil in

the Vedas. e. g. the Avesta *Ahura* and Sansk. *Asura*, and those that are represented as evil in the Avesta are characterised as good in the Vedas. e. g. Avesta-*Indra*, Vedic-*Indra*. It is said that the Brahmans were not satisfied by praising their forefathers as men but extolled them as divine beings or angels as Avesta *Yima*, Sansk. *Yama*.

Angels in the Avesta are all predominant over the good creation of Ahura. They are represented as shapeless and undying and shining. They may be divided into two groups (a) those that resemble the Vedic gods and other nations of antiquity and (b) those that are purely Iranian. Every archangel is supposed to represent an abstract conception which is generally indicated by the term itself and every angel is supposed to be a minor divinity presiding over a certain beneficent natural object. For example *Ater*, the angel of fire, presides over fire also. A very great homage was paid to fire so much so that no important ceremonies could be performed without it. The Yazatas (angels) stand in the Vedas under the Name of the Daevas. The Devas is the name given in all the Vedas and in the whole Sanskrit literature to the divine beings or gods who are the objects of worship on the part of the Hindus even to the present day. In the Avesta from its earliest to its latest texts and even in Persian literature, Daeva (Per. Div.) is the general term for an evil spirit, a fiend, demon or devil who is hostile to all that comes from the Almighty and that is good for mankind. In the confession of faith recited by the Parsis, a Mazda worshipper is distinctly said to be "Vi-daeva" against the Daevas.

In the Vedas, especially in the *Atharvaveda* and the Brāhmaṇas, the gods number thirty-three (trayas trimśad

devāḥ) in all. The names of the individual Vedic gods are not the same throughout. In the *Aitareya Brāhmaṇa* III, 22 they are enumerated thus, eight Vasavas, eleven Rudras, twelve Ādityas, one Prajāpati, and one Vaṣaṭkāra. Instead of the last two we find Dyāvā-Pr̥thivī (heaven and earth) mentioned in the *Śatapatha Brāhmaṇa* IV, 5, 7, 2. In another passage of the same work XI, 6, 3, 5, we find Indra and Prajāpati mentioned as the last two. In the *Rāmāyaṇa* III, 3, 12 the two Aśvins are mentioned instead of them. With these thirty three Devas of the Vedas we may compare the thirty three Ratus or chiefs for maintaining the best truths as they are instituted by Mazda and promulgated by Zoroaster. The difference between the Avestaic Yazata and the Vedic Devas is that, whereas the Avestan Yazatas show only good attributes and are represented as shining and immortal, the Vedic Devas are depicted as injuring mankind to a very large extent. The ancient Indians worship the Devas with the main object that they may escape scot free from their destructive influences; as for instance, they worship Yama, the Demon of death, with a view to be free from his pains. On the other hand the Parsis are enjoined to fight heroically against their difficulties. Again, the Vedic Devas are not represented as shining and immortal. They assume a human form and involve themselves in these worldly attractions and pleasures. Again, the ancient Indians represent a pious dead man as a divine being, as Yama, Sansk. Yama being the first man to die was considered a god after his death. Again, the Vedic gods are not the direct productions of the Almighty but they have parents like worldly men, as we find Indra having his parents in this world. Another great difference is that human sacrifices

were offered to the Vedic gods, whereas in Avesta no such sacrifices seem to have been offered to the Yazatas. In the Vedas we find horses and sheep offered as sacrifices to Indra and Agni. Now let us come to our main point.

According to Avesta the first and most worthy of adoration is Ahura, the wisest and the greatest. He is creator of the invisible as well as the visible world. It is he himself who inspired Zoroaster with the holy religion. In his being, Ahura-Mazda is a spirit. He is represented as the Creator, the supporter and the ruler of the whole universe. His character, as depicted in the holy Gathas, is the highest and noblest conception of spiritual sublimity. He is the maker of the sun, the moon, the stars, the earth, the waters, the trees, the winds, the clouds, man, the Producer of the day and night, without beginning and without end.

According to Pahlavi writings He is Omniscient (vispa-akas), omnipotent (vispa-tuban), the supreme Sovereign (vispa-khudai), All-beneficent (vispa-sut), All-in-all (vispan-vispa.) Many different sublime attributes and qualities of Ahura are found in Ahura Mazda Yašt, which go to prove that the honour and dignity of the godhead of Ahuramazda is fully upheld and maintained in Avesta. In the Vedas, too, we find "Asura" used in good and elevated sense as in the Avesta. In *Rgveda* the chief gods Indra, Agni and others are all named Asura. The chief gods such as Indra (Rv. I, 54, 3), Varuna (Rv. I, 24, 14), Agni (Rv. IV 2, 5, VII 2, 3), Savitṛ (Rv. I, 35, 9), Rudra or Śiva (Rv. V 42, 11,) &c. are all honoured with the epithet Asura which word means "the living, spiritual," signifying the divine in opposition to human nature. In the plural it is even used for all the gods, as

in (Rv. I 108, 6) "This Soma is to be distributed as an offering among the Asuras." by which word the R̄si means his own gods, whom he was worshipping. We find one Asura particularly mentioned who is called "Asura of heaven" (Rv. V, 41, 3). Heaven itself is called by this name (Rv. I, 131, 1). From all this we find that Asura was used in a good and elevated sense in the Vedas, not in the singular only but also in the plural. Zoroaster used (applied) the word only for one Deity and despised the worship of many gods. Later on, the word seems to have assumed a bad meaning and was so applied to the bitterest enemies of the Devas (gods) with whom these Asuras are depicted as always fighting. The Asuras were then supposed to be the constant enemies of the Hindu gods, and they make attacks always upon the sacrifices offered by the devotees.

The second archangel mentioned in Avesta next in order after Ahura is *Vohu mano* who is regarded as the essential faculty in all living beings of the good creation. He is also regarded as the guardian in Pahlavi. The literal meaning of the word *Vohu-mano* is "the good mind." The opposite of him according to Avesta is *Akem-mano*, mentioned in *Vendidad Fargarad XIX 4*. He produces all bad thoughts in men. We do not find any equivalent of *Vohu-mano* in the Vedic literature. After *Vohu-mano* comes *Asha Vahishta*. This term means "the best righteousness", the first part wheretoof viz. *Asha* means "rectitude, righteousness" and the second part *Vahishta* means "the best." In the later Avestan literature he is also the archangel presiding over fire, the reason being that fire is the symbol of purity. *Vendidad XIX 43* depicts Indra as the opponent of *Asha Vahishta*. Thus Indra

the chief god of the Brahmans, the thunderer, the god of light and god of war, one for whom the Ṛṣis, the ancient founders of Brahmanism, squeezed and drank the exhilarating Soma beverage, is expressly mentioned in the Avesta passage above referred to in the list of demons. Therein he stands as one of the six associates of Angra-mainush and also as the opponent of Asha Vahishta. He is the opponent of righteousness. But in the Vedas, he is considered as the great god and is placed almost on the same level as the Avestan Ahura. He reigns over the deities of the intermediate region or atmosphere. He fights against and conquers with his thunderbolt, the demons of darkness and in general he is a symbol of generous heroism. In the Vedas many hymns are recited in his praise. He is the head of all and fights against the wicked for the good of mankind. Everyone is afraid of him. He protects the Aryans and guards their flock. He fights with the Asuras in order to save the wives of the Devas from falling into their hands and also to protect men and cattle against drought. His chief power lies in his material strength. The Devas Mitra, Agni, Marut etc. help him in his battles. Although he is considered so very exalted yet he is not uncreated. "A vigorous god begot him, a heroic female brought him forth." We also find his parents mentioned in the Vedas. He fights with Vṛtra and Ahi, who are the demons of drought and inclement weather and overpowers them both. He also fights with Dasyus and Gandharva. He is represented as a warrior. He has vigour in his body, strength in his arms, thunderbolts in his hands and wisdom in his head. Different appellations are given to him. He is sometimes called the Valabhid, because once he protected the cattle of the Brahmans from the

hands of the demon Vala. Another name is "Vṛtrahan" which corresponds to Av. Verethraghna. The chief triad among the Hindus is that of Agni, Sūrya and Vāyu in which Indra took the place of Vāyu and was represented as the demon of storm, thunder and lightning. Like human nature, however, he is a slave to his passion. He has got a wife called Indrāṇī in the Vedas and several children. According to the *Mahābhārata*, he even seduced, or at all events, endeavoured to seduce Ahalyā, the wife of the sage Gautama. His libertine character is also shown by his frequently sending celestial nymphs to excite the passions of holy men and to beguile them from the potent penances which he dreaded. He is wrathful with those who do not dedicate to him the drinking beverage called Soma. Although he obtains victory over his rivals, still he is sometimes afraid of them and especially of the Brahmans. Owing to this, his position is, in the later Vedas, so much depreciated that even his existence is doubted.

The fourth archangel is *Khshathra Vairyā Sharevar*, (which in the later literature), presides over metals in the Avesta and is the giver of wealth. The name literally means the desirable strength or sovereignty. Khshathra in Gatha means power, strength or authority and Vairyā means desirable or wished for. It is found in Pahlavi as Khshathra or Shatrevar, in Persian as Shahrivar.

"This personified abstraction in its spiritual sense" rightly observes Professor Jackson "represents an embodiment of Ahura Mazda's might, majesty, dominion and power, or that blessed reign whose establishment on earth will mean the annihilation of evil." The pious Zarathushtra desires strength from god for his disciples so that they may give him help in performing the

marvellous achievement of this world viz., propagation of the religion. "Khshathra in short denotes the rule of Ahura Mazda as is apparent from Yasna Ha 41 sec. 2. "May we attain to thy Good Kingdom, O Ahura Mazda, for all eternity." In the world of material things Khshathra Vairyā is represented as presiding over metals, Saurva (Vedic Śarva) occurs as the opponent of Khshathra Vairyā in *Vendidad Fargarad XIX*, in which context, he is mentioned as a perishable cold-producing demon and an assistance to Indra and Anghromainush. The Vedic Śarva is called the Śiva of the Hindus. His work is to produce mismanagement, oppression and drunkenness in men. Among the Hindus he is considered to be a great god.

In *Bundehishna* we find the word Savar or Sovar for the same. In the Vedas his appearance is depicted as very dreadful. He wears a garland of the human skulls. In the exercise of his function of Universal Destroyer he is said to 'destroy not only all created beings but even Brahmā, Viṣṇu and the other gods whose bones and skulls he wears as garlands. He is compared with the demon of death. Later on he is called the chief of the spirits and witches. Śiva is the term unknown to the Vedas but the one frequently used is Rudra. In the *Rāmāyaṇa* Śiva is a great god but the references to him have more of the idea of a personal god than of a supreme divinity.

One triad of divine manifestation among the Hindus is that of Brahman (Creator), Viṣṇu (Protector) and Śiva (Destroying spirit). There he is found as a destroyer. In this capacity he can to a certain extent be compared with Angromainush, the evil spirit.

After Khshathra Vairyā comes *Spenta Armaiti* (Spēndarmad) "the bountiful Armaiti" who represents

the earth. The name literally denotes "bountiful righteous thinking" the mind which keeps itself always within the bounds of what is right and good. By this is not only to be understood wisdom but something even more than that viz, "humility and quiet resignation to the divine will." The earth has two names in the Avesta (1) Spenta Armaiti and (2) *Zem Hudao*. The first is one of the names of the Amesha Spentas and the second is the name both of the earth and of its Yazata. Ervad Sheriarji Bharucha translates it as "beneficent love". The root meaning of Armaiti is also "devotion". She represents the pious and obedient heart of the true worshipper of Ahura Mazda who serves god alone with body and soul. Materially Spenta Armaiti is represented as the protectress of the earth. This part of her nature appears more clearly in the legend of Yama, according to which, under that king the human and animal creations having multiplied themselves and the earth having consequently become too narrow for them, he prayed to Spenta Armaiti to extend. Along with this idea, one may inquire as to how humility could be made to be the protectress of the earth. This comes from the idea of regarding the earth chiefly as the humble suffering one which bears all, nourishes all, and sustains all. Armaiti is found as a female spirit in the Vedas also. Here too she stands under a double aspect. In *Rgveda* VII, 1, 6 ; 34, 21 Aramati is used in the sense of "devotion". In the same book (X 92, 4, 5) we find Aramati used also in the sense of earth. "From this we see" observes Dr. Haug "that in the Vedas as well as very often in the Avesta, we cannot with certainty separate the abstract from the concrete significance". She is called a virgin in the Vedas who comes to Agni with

the offerings of butter every morning and evening (Rv. VII, 1, 6.). In the Gathas she is called the daughter of Ahura Mazda. Naonhaithya, Vedic Nāsatyās, is the name of an evil spirit in the Avesta. He is the demon of dissatisfaction and illusion. He is also Aśvin in the Vedas and an opponent of Spenta Armaiti. In *Bundehishna* he is called "Naonhas". Here we find his another name Taromat, which is exactly the opposite of Spenta Armaiti. He is mentioned as an evil Daeva along with Indra, Sauru, Tairich, Zairich etc. in *Vendidad Fargarad* 19-42 and *Vendidad Fargarad* 10-9. In Naonhaythia daeva we readily recognise the Nāsatyās of the Vedic hymns. He is herein depicted as the companion of Indra, Shurva and Aesma.

Haurvatat and *Ameretat* (Khordad and Amardad), the two last archangels, form an inseparable pair. They appear almost constantly united and the presence of the one announces that of the other. The link which unites them is as close as that of Mitra and Varuṇa in Vedic poetry. Their names signify invulnerability or totality and immortality. They rule over the water and the plants respectively in the later literature. They represent the preservation of the original uncorrupted state of the good creation and its remaining in the same condition as that in which it was created by God. They are generally both mentioned together and they express a single compound idea. Being the tutelary deities of waters and plants, they are quite naturally appointed to preside over the nourishment of mankind. The abstract significance of both these Amesha Spentas is quite clear, as we know the water dispenses health and the wholesome plants are created by God to dispel sickness and death; hence both of them form as if it were an inseparable

pair. Haurvatat is derived from *haurva* meaning entire, whole and *tât* is the abstract suffix ; so it seems that Haurvatat corresponds to the Latin Word *Universitas* meaning healthiness, totality. Ameretat is derived from *a* and *mereta* meaning not dying, the *tât* being the abstract suffix ; so the whole meaning is immortality or indefinite recoil from death. The adversaries of Haurvatat and Ameretat are Tauru and Zairicha, the demons of sickness and decrepitude or feebleness. In the Avesta *Vendidad* they are considered to be the companions of Anghra Mainush. As Haurvatat and Ameretat acquired the attributes of the protectors of water and vegetation, so their opponents appear most likely to be the demons of thirst and hunger. The derivation of Zairicha corroborates this statement. It comes from 'Zar' to weaken or to fall down and hence this demon produces weakness, debility and death among mankind and so whilst Ameretat increases the growth of trees and food, this demon Zairicha produces aridity and barrenness and scarcity of food, for living creatures. According to *Bundehishna* and *Dâdestâni Dini* Zairicha produces poison. In the Vedas we find Brahma producing several angels and the evil powers all fight against them and just as Zairicha is considered to be the opponent of Ameretat, so Zaras is supposed to be the evil power against vegetation land plants. In *Dâdestâni Dini* Zairich is considered to be the producer of poison.

PALI AND BUDDHISM.

KING JANAKA AND THE BURNING OF MITHILĀ.

(FROM PĀLI & JAIN SOURCES.)

BY C. V. RAJWADE.

I.

The earliest mention of King Janaka in the Brahmanical texts is in the Śatapatha Brāhmaṇa. His name occurs there in various places (xi 3.1.2 ; 4.3.20 ; 6.2.1 &c). But the famous passage which is frequently repeated in later texts is xi. 6.2.1. There it is said of King Janaka of Videha, that he once met with some travelling Brahmans named शेतकेरु आरुण्य, सोमशुभ्र, सात्ययन्नि and याज्ञवल्क्य and asked them as to how they offered the अग्निहोत्र oblation. They replied in different ways. The King was satisfied with the answer of याज्ञवल्क्य and gave him three hundred cows etc.

He is mentioned in some of the other Brāhmaṇas also as liberal in his gifts and famous for his philosophical discussions on Brahman.

Of the Upaniṣads the *Kauśītaki* and *Jābāla* have merely passing references to him. But almost the whole of the 4th Adhyāya of *Bṛhadāraṇyaka Upaniṣad* speaks of his philosophical discussions mainly with Yājñavalkya.

These are all related in the same way as the narratives of *Sal. Br.* and show the same familiarity with the subject. *Bṛh. Up.* 4.3 especially is interesting as it is a continuation of *Śat. Br.* xi. 6.2.1. given above.

In the *Mahābhārata* there is a very large number of narratives about him. But a tone of respectful distance is already visible in them and sometimes he becomes almost mythical. The famous stanza viz.

सुसुखं वत् जीवामि यस्य मे नास्ति किंचन ।

मिथिलायां प्रदीप्तायां न मे दह्यति किंचन ॥ xii 219,50

is many times abruptly ushered in as having been formerly sung by the King of Videha. All these narratives are further, with only one exception (iii. 8089), restricted to the twelfth book Śāntiparvan, where there is free scope for the addition of any matter of a philosophical import. Thus besides the famous stanza about the burning of Mithilā we meet with narratives of discussions of the King with various persons. Adhs. 220-223 are very important. Janaka is there said to have employed a hundred teachers of various sects and tried hard to find out the 'soul'. At last Pañcaśikha is brought in who preaches the Sāṅkhya doctrine to the King. This is interesting as the fact of the King's ever having been conversant with the Sāṅkhya doctrine has not been mentioned before in the Brāhmaṇas and Upaniṣads. And in the treatment of the principles of the Sāṅkhya doctrine, there is clearly visible a dominating influence of the tenets of Buddhism. There are other Adhs. also, treating of Sāṅkhya as preached to Janaka.

But the passage that is of great importance to us for our present enquiry is contained in Adh. 18 which records the conversation of Janaka with his wife, as he was about to renounce the world. In order to stop him from doing so, she uttered the following stanzas

धनान्यपत्यं मित्राणि रत्नानि विविधानि च ।

पन्थानं पावकं हित्वा जनको मौद्यमास्थितः ॥ ४ ॥

.....
श्रियं हित्वा प्रदीप्तां त्वं श्वरत्संप्रति वीक्ष्यसे ।

अपुत्रा जननी तेऽय कौसल्या चापतिस्त्वया ॥ १२ ॥

and asked him to stay in worldly life and give gifts, for that was the best Dharma and renunciation was of no use.

What connection this legend has with the famous stanza will be apparent when we treat of the Buddhist and Jain parallels in the next two sections. Let it suffice here to note the very abrupt beginning and close of the narrative and its omission to give a connected account as to the renunciation of the great King.

II.

There is no mention of King Janaka in the Buddhist Tripitaka except in the Jātaka book. But there is a Gāthā in the *Dhammapada* which closely resembles the famous stanza. It is as follows :—

मुसुखं बत जीवाम येसं नो नत्य किञ्चनं ।
पीतिभक्त्वा भविस्त्वाम देवा आभस्त्वा यथा ॥ २००

In the Chinese and Tibetan versions of the *Dhp*. there is an additional verse given preceding this Gāthā, which appears as an exact translation of the famous stanza in *Mbh*.

The Jātaka that narrates the story of King Janaka is the Mahājanakajātaka (No. 539). At Mithilā in Videha reigned a King called Mahā-Janaka. He had two sons Ariṭṭha and Pola-janaka by name. After the death of the King the first ruled the country and imprisoned his brother. But the latter escaped by means of the 'truth ordeal', attacked Ariṭṭha with a large army and killed him. The queen of Ariṭṭha fled from the city and with the aid given to her by Śakra went to Kālacampā where a Brahmin took care of her. She gave birth to a son at that place, who was named Mahājanaka. When he came of age he set out for Suvarṇabhūmi with desire to regain his father's kingdom. The prince reached Mithilā and found that Pola-janaka was dead. The ministers wanted to choose a new King as there was no heir to the throne. For this purpose they made

ready a chariot according to instructions left by the dead King and carried it all over the city. It went and stopped just before the prince who had arrived there, and thus he was duly chosen. Another condition laid down by the late King was that the man selected should be able to win the hand of his daughter.

After a time his queen gave birth to a son. Once the King went to a garden where stood two mango trees, one laden with fruit and the other devoid of any. He took off a mango fruit from the former tree and began to eat it. His retinue thereupon ransacked that tree and left no fruit on it. On his way back the King found what had happened. He reflected in his mind that the tree was ruined on account of its fruit, while the other was quite safe. Thus in this world, it is only those that have possessions that are beset with fear: 'Sakin canasseva bhayan na akincanassa.' With this thought he resolved to renounce the world. He left the palace just at the time when the Queen was coming to see him. Knowing what had happened, she followed the King, and in order to tempt him back into worldly life, continued to show him fire and smoke on every-side and said to him, "Here are the flames that are burning down all your treasures. Come back, O King! May not your wealth be destroyed!" To this the King calmly replied

125 सुसुखं वत जीवाम येसं नो नत्थि किञ्चनं ।

मिथिलाय डग्हमानाय न मे किञ्चिच अडग्हथ ॥ 245

The Queen then tried to win him over by various other expedients. She showed him that thieves were plundering his city, to which the reply was

127 सुसुखं वत जीवाम येसं नो नत्थि किञ्चनं ।

रेषे विञ्छुपमानमिह न मे किञ्चिच अजीरथ ॥ 247

128 सुसुखं वत जीवाम येसं नो नत्य किन्चनं ।

पीतियक्त्वा भविस्साम देवा आभस्तरा यथा ॥ 248 (- Dhp. 200)

The queen and the people still tried to follow him. On his way to Himālaya the King met Narada and Migājina and at last reached the city of Thūnā, where he began to eat a morsel of flesh left by a dog, at which the Queen was disgusted. But he calmly replied that all food was pure alike. *Sabbo bhakkho anavajjo.* Going further they saw a girl, on one of whose arms there were two bangles and on the other only one. The two bangles on one arm jingled while the one on the other was silent. In order to convince the queen of the advantage of solitary life, the king asked the girl how the two made noise while the one was silent. She replied.

157 इमस्मि समण हत्थे पटिमुक्का दुनीधुरा ।

संधाता जायते सद्गु दुतियस्सेव सा गती ॥ 277

158 इमस्मि समण हत्थे पटिमुक्को एकनीधुरो ।

सो अदुतियो न जनति मुनिभूतोऽव तिद्वति ॥ 278

159 विवादमन्तो दुतियो केनेको विवादिस्सति ।

तस्स के सगगकामस्स एकत्त उपरोचतं ॥ 279

Further they saw a fletcher heating and straitening an arrow by closing one eye, On being asked the reason of this he replied, "viewed with both the eyes, the object appears large, with one eye, one can hit the exact spot in the object" and repeated stanza 159. Seeing the king leave her, the queen fainted, but the king went on. The queen built shrines at the various places where they had stopped, returned and renounced the world.

III.

In the sacred books of the Jains, the name of Janaka does not occur at all. We have instead legends about a king called Nami which correspond to those

about king Janaka in the Brahmanical and Buddhist books. Nami in Jain scriptures is one of the four Pratyekabuddhas whose accounts are given in the commentaries to the ninth Adh. of the *Uttarādhanasūtra* which is styled *Namipravrajyā*. He seems to correspond to king Nimi of the Brahmanical and Buddhist books. There is mention of a king of that name in the *Pañcavimsabrāhmaṇa* (XXV.10.17). The Mahābhārata speaks of Nimi as an ancestor of Janaka (ii.8, 9 ; xiii.138) and his name frequently occurs in the Purāṇas. Thus in *Viṣṇu* (iv-5-6) it is told how once Nimi and Vaśiṣṭha cursed each other. The same story is told in *Bhāgavata* (ix.13.1-13).

In the Buddhist scriptures, a whole Jātaka (Nimi-jātka No. 541) deals with his account. He is said to have been an incarnation of the famous king Makhādeva who renounced the world on seeing a grey hair appear on his head. He became pious and liberal, whereupon Śakra in fear came down to see the king, who asked him about the fruit of Dāna and Brahmacarya. Śakra then asked his charioteer Mātali to show heaven and hell to the king, which was done. Śakra finally asked the king to partake of the joys of heaven, but he declined. He came back to the earth and renounced the world. His son Kalāra-Janaka then sat on the thorne.

The commentary to the *Uttarādhyayana* gives the introductory account of the life of Nami upto the point where the text of the 9th Adh. begins. Its substance is as follows :—

At Sudarśanapura in the Mālavaka country, there reigned King Maṇiratha. His brother was appointed Yuvarāja. He had a wife Mayaṇarehā and a son. The king once fell in love with Mayaṇā but as she would not consent he tried to kill her husband. So when

once the Yuvarāja was sporting in a garden with his wife, the king went there, killed him and pretended that this happened through mistake. Madanarekhā fled to the forest, where she gave birth to a son. While she went to an adjoining lake to wash herself, a water-elephant threw her up with his trunk. A Vidyādhara caught her up, and would not allow her even to fetch her child.

The king of Mithilā found the child and reared him up with the aid of his wife. Madanarekhā outwardly consented to the advances made by the Vidyādhara and both went to Nandisvara and listened to the sermon; when the Vidyādhara was imbued with the spirit of religion he left her. The saint who was preaching then told her the former story of her son in detail. Mandanrekhā was taken by a god to Mithilā where she renounced and was named Suvvayā. Her son was named Nami. Maṇiratha died by serpent-bite, just the night he killed his brother. So Candrayaśas was placed on the throne of Sudarśanapura. Once the white elephant of Nami wandered in the town and was caught by Candrayaśas whence ensued war. But Suvratā revealed her identity to Nami and made peace between the two brothers. Candrayaśas then renounced the throne in favour of Nami.

Once there was an intense burning sensation in the body of king Nami. The queens began to anoint him with sandal juice, but their bangles jingled which troubled the king a great deal. So they broke all their bangles leaving only one on each arm, when all noise was stopped. From this the king realized that Saṅgha was the cause of all pain in this world, and so he renounced.

संबुद्धो पव्वइओ बहुयाण सहृदं सोचा ।
एगस्स असहृदं वलयाण नमीराया निकर्खंतो महिलाहिवो ॥

Here the commentary is over and the text begins. King Nami renounced the world and there was a great commotion in Mithilā at this. To test him, Śakra came in the guise of a Brahmin and asked the king, "Why is there so much commotion in the city?"

Nami—There is a Caitya tree in Mithilā full of fruit and flowers. It is shaken by the wind, and these creatures, the birds, are crying being helpless (9-10).

Śakra—Here is fire and wind, your palace is being burnt, why do you not look at your harem? (Here Śakra showed the king the ravages done by fire and wind).

Nami—सुहं वसामो जीवामो जेसि मो नत्थि किंचणं ।
मिहिलाए डज्जमाणीए न मे डज्जइ किंचणं ॥ 14

Since I have left wife and son and am without any business and have turned a Bhikṣu I have neither likes nor dislikes.

Then follows a long conversation in which Śakra tries in various ways to tempt the king back into worldly life but the king answers all his arguments and is quite determined to renounce (17-49). Śakra at last expressed his great surprise and then left off the guise of a Brahmin, bowed down to the king, praised him and went away.

* * *

We may now try to see what results we obtain by the comparison of the three versions. One thing is clear enough at the outset by being common to all the versions, that Mithilā was never actually burnt. It is not a historical fact at all. Further it appears that it was a mere show put forth to tempt the king, although this fact is absent from the Mbh. version. There seem to have been two different accounts of the

temptation to which the king was subjected. In one it was Śakra that came down from heaven specially to test the king, and in this the Jain account seems to be more ancient. As shown before the *Mbh.* story is a mere makeshift. According to the other account, it was his queen that tried to tempt him back into worldly life. This is recorded in an isolated chapter (xii-18) of the *Mbh.*, which tallies in its general idea with the *Mahājanakajātaka*. The *Jātaka* story is a homogenous and compact account, although some incidents may as well have been added there, while as noted before, the *Mbh.* version is too abrupt and unconnected.

The name of the king on whom these legends are fathered seems to have been Janaka. The *Mbh.* and *Jātaka* versions are at one with regard to this fact. In the Jain version, however, these accounts are given not about Janaka but about Nimi. From the agreement in name in the *Mbh.* and *Jātaka* versions it may in all probability be said that the Jains substituted the name of Nimi, one of Janaka's ancestors, for Janaka himself. The fact that Janaka was a pious king always engaged in philosophical discussions and that he was a Brahmin in spirit goes back to the times of *Sat. Br.*, while the name and account of Nimi is no where to be found in ancient literature. The idea of substitution need not surprise us as such things have been done by the Brahmins and Buddhists themselves. It is in fact common to all religions.

The two versions of the story of Janaka's renunciation seem originally to have been quite distinct, but later on to have got mixed, as can be seen from the parallelism in stanzas in the three versions. Closely similar words are put in the mouths of Śakra and

the queen and the fact of the burning of Mithilā being figurative already peeps out from the second version (xii-18) in the *Mbh.* where the queen says:

थियं हिला प्रदीपां त्वं श्वत्संप्रति वीश्यसे ।

In spite of the agreement between the Buddhist and Jain versions, it may have been the fact that the bracelet incident was originally quite independent and was later on amalgamated with the main story. This may be further seen from the fact that the incident is put at different parts of the story in the different versions. In the *Mbh.* it is a separate incident quite unconnected with the story, as is also the case with the reference in *Suttanipāta* given before. In the *Jātaka* version it is put at the end of the story, while in the Jain version it does not appear in the regular text of the *Uttarādhyayana* at all, but belongs to the commentarial portion and is given there as having happened before the renunciation of the king.

The heaven and hell incident may be said to have no parallelism at all. In *Nimijātaka* it is Śakra's charioteer that showed heaven and hell to king Nami while in *Mbh.* xii-99 king Janaka himself showed these to the warriors.

1 This Stanza occurs also in the *Samyutta Nikāya* IV. 2-8.

2 Fausboll VI 33-68.

3 Fausboll VI.

4 I do not mean that there was any conscious and deliberate attempt at substitution. Attention to minor details is many times not paid owing to religious enthusiasm. Besides as Nimi was an ancestor of Janaka, legends about both might early have got mixed together and the Jains may have used just the other version for their purpose.

NĀGĀRJUNA, THE EARLIEST WRITER OF THE RENAISSANCE PERIOD.

BY SATIS CHANDRA VIDYABHUSANA.

The first and foremost writer of the Renaissance period 300 A. D. to 600 was Nāgārjuna, called by Tibetan writers, Klu-grub, round whose name has gathered together a host of traditional stories referring to his gifts as a Physician, a Chemist, an Alchemist and a Philosopher. I shall here only give a short account of Nāgārjuna as a Philosopher. Nāgārjuna was born at Vidarbha (modern Berar) in Mahākośala during the reign of King Sadvaha or Sātavāhana to whom he wrote a letter called Nāgārjuna-subord lekha (of the Andhra dynasty)¹ and passed many of his days in meditation in a cave dwelling of Śrī-Parvata² that bordered on the river Kṛṣṇā. That Nāgārjuna lived in Vidarbha (modern Berar) is evident from an inscription on an image of Buddha by the side of the Amarāvati Stūpa in character of the early 7th century A. D. The image is said to have been originally prepared by Candraprabha, disciple of Jñānaprabha, who in his turn was a disciple of Bhadanta Nāgājunācārya.³ Nāgārjuna was a pupil of Saraha and is said to have converted a powerful king named Bhoja Deva to Buddhism. He is stated by Lama Tārānāth, to have been a contemporary of king

1. Beal's *Buddhist Records of the Western World*, Vol. II Book VIII, p. 97 and book X p. 210.

2. For an account of Śrī-parvata or Śrī-saila see Hinentsang's life, Introduction p. xi by Beal;

3. Archaeological Survey of South India No. 3. Amarāvati Stūpa.

Nemi Candra (about 300 A. D.) and perhaps also of Candra Gupta I (319 A. D.). The latest date that can be assigned to Nāgārjuna is 401 A. D. when his biography was translated into Chinese by Kumārajīva. That Nāgārjuna lived at the end of the 3rd century A. D. harmonises well with the fact that his disciple Deva lived a little after 320 A. D.

Nāgārjuna was the author of a treatise on logic called *Pramāṇa Viheṭana*⁴ which is a review of the definitions of the sixteen categories as given in the *Nyāya Sūtra*. The Sanskrit original of this work is not available, but there is extant a Tibetan version of a commentary on it, called *Pramāṇa-viheṭana-tippi-ṭaka-vṛtti* or a magic-stick commentary on *Pramāṇa-Viheṭana*. A special feature of the *Pramāṇa-Viheṭana* is that in it Nāgārjuna for the first time reduced the syllogism of five members into one of three. The five membered syllogism, as explained in the *Nyāya-sūtra*, runs as follows :—

- (1) This hill is fiery (Proposition).
- (2) Because it is smoky (Reason).
- (3) All that is smoky is fiery, as a kitchen (Example).
- (4) This hill is smoky (Application).
- (5) Therefore this hill is fiery (Conclusion).

As shortened by Nāgārjuna, the syllogism stands thus :—

- (1) This hill is fiery (Proposition).
- (2) Because it is smoky (Reason),
- (3) As a kitchen (Example).

It may be remembered that Indian logicians, in spite of their stout opposition to Nāgārjuna's syllogism,

4. Published by the Buddhist Text Society of Calcutta. Prof. Louis de La Valle Poussin has also edited it.

found it in course of time expedient to adopt the same.

Upāya-Kauśalya-hṛdaya-sūtra is the name of another work on logic in which Nāgārjuna gives a clear exposition of the art of debate. In the *Vigrahavyābar-tanikārikā*, a work on general philosophy, Nāgarjuna criticises the Nyāya theory of pramāṇa and it is perhaps this criticism which is reproduced in the *Nyāya-bhāṣya* of Vātsyāyana in connection with his examination of pramāṇa.

But that which distinguishes Nāgārjuna pre-eminently in the world of letters is the Mādhyamika-philosophy founded by him in consonance with the principles of the great Mahājāna Vaipulya-sūtra called *Prajñā-Pāramitā*.

The *Mādhyamika-kārikā* is the first work on the Mādhyamika philosophy. The doctrine which permeates this work, is that of the middle path⁵ which is to be comprehended from four aspects viz, (1) in contradistinction to one-sidedness, (2) as the abnegation of one-sidedness, (3) as unity in plurality, and (4) in the sense of absolute truth.

As we cannot conceive of being (existence) independently of non-being (non-existence), it will be taking a one-sided view if we are to say that the world exists or that it does not exist. The middle path furnishes a contrast to this one-sidedness by avoiding the extremes of being and non-being. This is the first aspect of the middle path.

Denying the two extremes the middle path reveals itself through a complete harmony between them, that is, it transcends the extremes of being and non-being

5. L. C. XXIV P. 185.

which are unified. This is the second aspect of the middle path.

The middle path which unifies all particulars, does not lie beyond them. The particulars attain their characters of particularity only through our conception of the unity among them. Had there been no unifying principle, the particulars would have ceased to be as such. This is the third aspect of the middle path.

By "middle path" it is not to be understood that there is something between the two extremes of being and non-being. In fact we must avoid not only the two extremes but also the middle. The middle path, which discards all limitations, expresses the human conception of the absolute truth. This is the fourth aspect of the middle path.

The absolute (*Sūnyatā* or void) is demonstrated through the assumption of two truths—the conditional (*samvṛti*) and the transcendental (*paramārtha*). Judged by the transcendental truth no object comes into being or dissolves into non-being. It is from the point of view of the conditional truth alone that we can speak of the existence or non-existence of an object. As a fact no object has a nature or self-existence : objects come into existence in virtue of certain relations or conditions. Taking a substance and its qualities we find that the latter exist in relation to the former, and the former exists in relation to the latter. So a whole exists in relation to its parts and the latter exists in relation to the former. Proceeding in this way we find that the world is an aggregate of relations or conditions. Origination and cessation, persistence and discontinuance, unity and plurality, coming and going—these are the eight fundamental conceptions of relation or condition.

These conceptions which are absolutely unreal give rise to our prejudices and wrong judgments. There nestles in them the principle of unrest and misery, and as people cling to them their life is an everlasting prey to the pendulous feeling of exultation and mortification.

Where there is conditionality, there is no truth. Truth and conditionality are incompatible. Therefore to attain the truth, conditionality must be completely cast aside. When our mind is purified from the smirch of conditionality, there will come out the serene moon-light of "suchness" (*tathātā*) or transcendental truth (*paramārtha*), otherwise known as the void or absolute (*śūnyatā*).

It may be asked as to whether there is actually a thing called "suchness", "transcendental truth" or "the absolute". The answer will be that the thing which lies beyond conditionality, cannot be expressed in terms of "is" and "is not" or "being" and "non-being". It avoids the two extremes of "being" and "non-being", nay, it unifies both by underlying each of them. This so-called thing (*śūnyatā*) is called *Nirvāṇa*, which is an unconditional condition in which all contradictions are reconciled. Attempts have been made to express this condition by the term "Infinite", "Eternal", "Profound" "Unconditioned", "Absolute" or "Blissful", but in reality no language can give adequate expression to it.

The *Mādhyamika-kārikā* by Nāgārjuna, *Mūlamadhyama-vṛtti* by Buddha Pālita, *Hastabala* by Ārya Deva, *Madhyama-hṛdaya-kārikā* by Bhāvaviveka, *Madhyama-pratītya-samutpāda* by Kṛṣṇa, *Mādhyamika-vṛtti* by Candra Kīrti and *Mādhyamikāvatrāṭikā* by Jayānanta—are the principal works of the Mādhyamika

School. *Mūla-Mādhyamika-vṛtti-akutobhaya*, a work of Nāgārjuna was translated into Tibetan, under orders of the great king Dpal-tha-tsanpo, by the Indian sage Jñānagarbha and the Tibetan official interpreter Kluhi-rgyal-Mtshan. The translation closes by mentioning eight expounders of the Mādhyamika philosophy, viz. Ārya Nāgārjunā, Sthavira Buddha Pālita, Candra Kirti, Deva Śarmā, Guṇa-Śrī, Guṇa-Mati, Sthira-mati, and Bhavya (or Bhāva-viveka). The doctrine of the Mādhyamika philosophy has been a subject of constant attack by the Indian Philosophers of all Schools. An attempt has even been made to misinterpret it wilfully and even to discard it as a system of nihilism, but it has emerged unscathed. Impartial judges such as the authors of the *Padma Purāṇa* etc have declared the Mādhyamika Philosophy of Nāgārjuna as the basis of the Māyāvāda of Śaṅkarācārya.

I have given only an imperfect idea of Nāgārjuna as a Philosopher. He may be looked at from so many distinct stand-points that he may be rightly called the Aristotle of India.

SŪGATA NĀYASATTHAM.
(THE BUDDHIST PHILOSOPHY.)
BY WIDURUPOLA PIYATISSA.

Idam pana satthamāyasmatā mahākaccāyanattherena mahākhīnāsavena pabhinnapaṭisambhidena asītiyā mahāsāwakesu antogadhenā bhagawatā etadagge ṭhapite na pañitam navaṅgasatthusāsanasaṁvaṇṇanāya. Tattha navaṅgasatthusāsanam nāma :— suttam, geyyam, veyyākaraṇam, gāthā, udānam, itiyuttakam, jātakam, abbhutadhammam, vedallanti. Bhagavatā desito hi pariyatti-dhammo imehi navahi aṅgehi vinimutto nāma natthi. Tadetam navaṅgasatthusāsanam khātam pariyo tidihammam samvannetukāmenatāwa nāyasatthaññunā bhavitab-
bam. Tampanetam sattham racayāntena āyasmatā mahākaccāyanattherena dve pakaraṇāni pañtāni Peṭakōpadesō Nettippakaraṇāñcāti. Tesuca Nettippakaraṇam-bhagavatā anumoditam mūlasaṅgītiyam saṅgītam Badarati tharavihāravāsinā bhadanta Dhammapālamahā-therena dutiya ṭṭhakathācariyena viracitāya aṭṭhakathā-ya patimāṇḍitam syāmamaramnavisayesu laṅkādipeca sogatāgamadharehi therānutherehi sambhāviyamānam vattate. Tas evam sambhāvitatte satipi yasmā netameta-
rahi laṅkikāsu ācariyaparamparāsu antevāsike vācenti tasmāssa sabbatthapacalitabhāvo na dissate. Tam sādhuvatassā sace laṅkādipikā sogatāgamadharā ācariyapuṇḍavā pasattham nāyasatthamidante vāsike vāceyyum eta-
dantogadhattā sakalanavaṅgasatthusāsanasaṁvaṇṇanāya aviññāta nāyasatthānañ cādhunikānam pālyathasam-
vaṇṇanāya nāyavirodhāpajjanasambhavato. Tasmā mayamevamādikam payojanantaramabhisandhāya Nettip-
pakaraṇam tada ṭṭhakathañca nissāya tathāgata nayeneva sogatam nāyasatthamidha saṅkhepato dassayissāma.

Sakalamevahi Nettippakaraṇam āyasmatā mahākaccāyanena dvidhā vibhattam saṅgahavāro vibhāgavāroti. Tatrāyam sangahavārassa samkhepo.

Nettisamkhātena nāyasatthena samvaṇṇetabbapadatthabhāve ṭhitam suffageyyādinavaṅgasāṅgahitam pariyattisāsanam byañjanatthappabhedato dvādasapadamīha suttam nāma. Tenāha :—

“Dvādasa padāni suttam, tam sabbam byañjanañca atthocāti”.

Tassa ca suttassa atthasamvaṇṇanābhūtā solasahārā pañca nayā aṭṭhārasa mūlapadāni ca netti (athavā sogatañāyasattham) nāma. Tattha desanādayo solasapi hārā mūlapada-niddhāraṇamantarena byañjanamukheneva suttassa samvaṇṇanāhonti. Pañcasu nayesu tayo atthanayā nandiyāvatṭādayo atthamukheneva suttattham samvaṇṇenti. Ubhayampetam suttassa atthaniddhāraṇavasena sabbathā tutte payojitam suttam samvaṇṇeti-nāma.

Athava, atthesu kataparicchedo byañjanappabandho desanā, yo pāṭhoti vuccati. Tadattho desitam, tāya desanāya pabodhitattā. Tadubhayampi ekanteneva viññeyyam anupādāparinibbāṇapariyosānānam sampattinam hetubhāvato tadubhayavinimmuttassa ca nāneyyassa abhāvatoti. Yathāvutte ca vijānane sādhetabbe ayam vakkhamāno hāranayānupubbisamkhāto anukkamo navāṅgasāsanasamkhātassa suttassa attavicāraṇāti veditabboti.

Evatmisamkhittam saṅgahavāram vibhajitvā das-setum tadanantaram vibhāgavāro desito. So ca tividho uddesa-niddesa-paṭiniddesavasena.

I (I). Tattha uddesavāre tāva solasa hārā bhavanti :—1. Desanāhāro. 2. Vicayahāro. 3. Yāttiharo. 4. Padaṭṭhānahāro. 5. Lakkhaṇahāro. 6. Catubyūhahāro. 7. Āwaṭṭahāro. 8. Vibhattihāro. 9. Parivattanahāro.

10. Vevacanahāro. 11. Paññattihāro. 12. Otaraṇahāro.
 13. Sodhanahāro. 14. Adhiṭṭhānahāro. 15. Parikkhā-
 rahāro. 16. Samaropanahāroti.

Tattha kenaṭṭhena hārā ? hariyanti etehi etthavā suttageyyādivisayā aññāṇasamāṇsayavipallāsāti hārā. Haranti vā sayam tāni haraṇamattameva vāti hārā, phalūpacārena. Athavā hariyyanti vohariyyanti dhammasamvaṇṇaka dhammapaṭiggāhakehi dhammassa dānagahaṇavasenāti hārā. Athavā hārā viyāti hārā. Yathāhi anekaratanaṇwaliṣamūho hārasaṃkhāto attano avayavabhūtaratanasamphassehi samupajanīyamānahilādasukho hutvā tadupabhogijanasarīrasantāpam nidāghaparilāhūpajanitam vūpasameti. Evametepi nānāvidhaparamattharata-nappabandhā samvaṇṇanāvisesā attano avayavabhūta-paramattharatanādhigamena samuppādiyamānanibbutisukhā dhammapaṭiggāhakajanahadayaparitāpam kāmarāgādikilesahetukam vupasamentiti. Athavā hārayanti aññāṇādinam hāram apagamam karonti ācikkhatitivā hārā. Athavā sotujanacittassa haraṇato ramaṇatoca hārā, niruttinayena, yathā “bhavesu vantagamaṇo bhagavāti”. Ayam tāva hārānam sādhāraṇato attho. Asādharanato pana :—

1. Desiyati samvaṇṇiyati etāya suttatthoti desanā desanāsaḥacaraṇatovā desanā. 2. Viciyanti etena etthavā padapaññādayo viciti eva vā tesanti vicayo. Pāliyampana viciṇatiti vicayoti ayamattho dassito. 3. Yuttīti upapattisādhanayutti. Idha pana yuttivicāraṇā yutti, uttarapadalopena; rūpabhavo rūpanti ādīsuviya. Yuttisahacaraṇato vā yutti. 4. Padaṭṭhānanti āsannakāraṇam. Idhāpi padaṭṭhānavicāraṇāti ādi vuttanayameva. 5. Lakkhīyanti etena etthavā ekalakkhaṇā dhammā avuttāpi ekavacanenāti lakkhaṇam. 6. Viyūhiyanti vibhāgena piṇḍīyanti etena etthavāti byūho. Nibbacanādīnam sutte dasiyamānānam catunnam byūhoti catubyūho. Catunnam

vā byūho etthāti catubyūho. 7. Āvatṭiyanti etena ettha vā sabhāgā visabhāgā ca dhammā, tesam vā āvatṭananti āvaṭṭo. 8. Vibhajiyanti etena etthavā sādhāraṇāsādhāraṇānam samkilesavodānadhammānam bhūmiyoti vibhatti. Vibhajānam vā etesam bhūmiyāti vibhatti. 9. Paṭipakkhavasena parivattiyanti iminā, etthavā sutte vuttadhammā, parivattanam vā tesanti parivattano. 10. Vividham vacanam ekassevatthassa vācakamethāti vivacanam. Vivacanameva vevacanam. Vividham vuccati etena atthoti vā vivacanam. Sesam vuttanayameva. 11. Pakārehi pabhedato vā nāpiyanti iminā ettha vā atthāti paññatti. 12. Otariyanti anuppavesiyati etena ettha vā suttagatā dhammā paṭiccasamuppādādisūti otaraṇo. 13. Sodhiyanti samādhiyanti etena ettha vā sutte padapadatthapaññārambhāti sodhano. 14. Adhiṭṭhīyanti anupavattiyanti etena ettha vā sāmaññavisesabhūtā dhammā vinā vikappena adhiṭṭhāno. 15. Parikaroti abhisamkharoti phalanti parikkhāro. Hetu, paccayoca. Parikkhāram ācikkhatiti parikkhāro hāro. Parikkhāravisayattā parikkhārasahacaraṇatovā parikkhāro. 16. Samāropiyanti etena ettha vā padaṭṭhānādimukhena dhammāti samāropano. Sabbattha ca bhāvasādhanavasenāpi attho labbhatiti tassāpi vasena yojetabbam.

(II.) Pañca nayā bhavanti, yathā :—1. Nandiyāvatṭo. 2. Tipukkhalo. 3. Sīhavikkilito. 4. Disālocano. 5. Aṅkusotī.

Tattha nayanti samkilese vodānānicā vibhāgato nāpentiti nayā. Niyanti vā tāni etehi ettha vāti nayā. Nayānamattameva vāti nayā. Niyanti vā sayam dhammaka-thikehi upanīyanti suttassa atthapavicyatthati nayā. Athavā nayā viyāti nayā. Yathāhi ekattādayo nayā

sammā paṭivijjhīyamānā paccayapaccayuppannadha m-mānam yathākkamam sambandhavibhāgavyāpāravirahā-nurūpaphalabhāvadassanena asaṅkarato sammatisaccapa-ramatthasaccānam sabhāvam pavedayantā paramatthasac-capaṭivedhāya samvattanti, evametepi kaṇhasukkasap-patibhāgadhammavibhāgadassanena aviparitasuttatthāva-bodhāya abhisambhuṇtā veneyyānam saccapaṭivedhāya samvattanti. Athavā pariyattiathassa nayanato samkile-sato yamanato ca nayā, niruttinayena.

1. Nandiyāvatṭoti ādīsu nandiyāvatṭassa viya āvatṭo etassāti nandiyāvatṭo. Yathā hi nandiyāvatṭo anto ṭhitena padhānāvayavena bahiddhā āvatṭati, eva-mayampi nayoti attho. Atha vā nandiyā taṇhāya pamo-dassa vā āvatṭoti nandiyāvatṭo. 2. Tihi avayavehi lobhādīhi saṃkilesapakkhe alobhādīhi vodānapakkhe pukkhalo sobhanoti tipukkhalo. 3. Asantasanajavapa-rakkamādivisesayogena siho bhagavā. Tassa vikkilitam desanāvacikammabhūto vihāroti katvā vipattāsatappaṭi pakkhaparidipanato sihassa vikkilitam ethāti sihavikkili-to nayo. Balavisesayogadipanato vā sihavikkilita-sadisattā nayo sihavikkilito. Balaviseso cettha saddhādi balam, dasabalāni eva vā. 4. Atthanayattayadisābhā-vena kusalādidhammadmānam ālocanam disālocanam-5. Tathā ālocitānam tesam dhammadmānam atthanayatta yayojane samānayanato aṅkuso viya aṅkusoti.

(III.) Aṭṭhārasa mūlapadāni bhavanti yesam nava kusalāni nava akusalāni. Tattha, (1). Taṇhā. (2) Avijjā. (3). Labho. (4). Doso. (5). Moho. (6). Subha-saññā. (7.) Sukkhasaññā. (8). Niccasaññā. (9) Attasaññāti, navapadāni akusalāni. Sabbopi akusala-pakko ettheva saṅgaham samosaraṇam gacchati.

Tatha, (1.) Samatho. (2.) Vipassanā. (3.) Alo-bho. (4.) Adoso. (5.) Amoho. (6.) Asubhasaññā.

(7.) Dukkhasaññā. (8.) Aniccasaññā. (9.) Anatta-saññāti, imāni navapadāni kusalāni. Sabbo kusalapak-kho ettheva saṅgaham samosaranam gacchatīti.

Tattha mūlapadānīti, mūlāni ca tāni nayānam paṭṭhānabhāgānañca patiṭṭhābhāvato padāni ca adhi-gamūpāyabhāvato koṭṭhāsabhāvato cāti mūlapadāni. Ko-sallasambhūtaṭṭhena kucchitānam vā pāpadhammānam salanato viddhamṣanato, kusānam vā rāgadīnam lavanato, kusam viyavā lavanato, kusena vā nāṇena lātabbatō pa-vattetabbato kusalāni. Tappaṭipakkhato akusalānīti. Ayam uddesavārassa saṃkhepo.

(II) Idāni niddesavāram samkhepato dassema. So pañcadhā daṭṭhabbo. (1.) Padatthato. (2.) Lakkhaṇato (3) Kamato. (4). Etaparamato. (5.) Hetvādi-toti.

1. Tattha sāmaññenā hāranayasaddānam visesena desanāsaddādīnañca padattho atṭhakathagatanayena uddesavāre dassitto yeva.

2. Lakkhaṇe pana sāmaññato tāva sabbepi hārā nayā ca yathākkamam byāñjanatthamukhena navañgassa sāsanassa atthasamvaṇṇanalakkhaṇā. Visesato desanādī-nam lakkhaṇam evam daṭṭhabbam :—

(1) Assāda-ādīnav-a-nissarana-phala - upāya - āṇattī-nam vibhajanalakkhaṇo desanāhāro. (2) Padapuc-chāvissajjanapubbāparānugitīnam assādādīnañca visesa-niddhāraṇavaseneva vicayalakkhaṇo vicayahāro. (3) Sutte byāñjanatthānam yuttāyuttabhāvavibhāvanalakkhaṇo yuttihāro. (4) Sutte āgatadhammānam padaṭṭhānabhūtā dhammā tesañca padaṭṭhānabhūtāti sam-bhavato padaṭṭhānabhūtadhanmaniddhāraṇalakkhaṇo padaṭṭhānahāro. (5) Sutte anāgatepi dhamme vuttpakārena āgate viya niddhāretva samvaṇṇanalakkhaṇo lakkhaṇahāro. (6) Nibbacana adhippāya desanānidāna pubbāparānusandhīnam catunnam vibhāvanalakkhaṇo

catubyūhahāro. (7) Desanāyagahitasabhāgavisabhā-dhammavasena āvatṭanalakkhaṇo āvatṭahāro. (8) Sam-kilesadhamme vodānadhamme ca sādhāraṇāsādhāraṇato padaṭṭhānato bhūmito ca vibhajanalakkhaṇo vibhattihāro. (9) Nidditṭhānam dhammānam paṭipakkato parivat-tanalakkhaṇo parivattanahāro. (10) Ekasmim atthe anekapariyāyasaddayojanalakkhaṇo vevacanahāro. (11) Ekekassa dhammassa anekāhi paññattihi paññāpetabbākāra vibhāvanalakkhaṇo paññattihāro. (12) Paṭiccasamup-pāda-indriya-kandhia-dhātu-āyatana-mukhehi suttatthassa otaraṇalakkhaṇo otaraṇahāro. (13) Sutte pada-padattha pañhārambhānam sodhanalakkhaṇo sodhanahāro. (14) Suttāgatānam dhammānam avikappanavasena sāmaññā-visesaniddhāraṇalakkhaṇo adhitthānahāro. (15) Sutte āgata dhammānam parikkhārasamkhātē hetupaccay enid-dhāretvā samvanṇanalakkhaṇo parikkhārahāro. (16) Sutte āgatadhammānam padaṭṭhāna-vevacana-bhāvanā-pahāna samāropana vicāraṇalakkhaṇo samāropanahāro.

Nayesu ca, (1) Taṇhā avijjāhi samkilesapakkhassa suttatthassa samathavipassanāhi vodānapakkhassa ca catusaccayojanāmukhena nayanalakkhaṇo nandiyāvaṭṭo. (2) Akusalamūlehi samkilesapakkhassa kusalamūleh vodānapakkhassa ca suttatthassa catusaccayojanāmuī khena nayanalakkhaṇo Tipukkhalo. (3) Subhasaññadihvipallāsehi sakalassa samkilesapakkhassa saddhindriyādīhi vodānapakkhassa ca catusaccayojanāvasena nayanalakkhaṇo sīhavikkilito. (4) Tesu tesu suttatthavissa-jjanesu tassa tassa nayassa disā bhūtānam vodāniyānam samkilesikānam ca dhammānam manasā olokanalakkhaṇo disālocano. (5) Disālocanena olokītānam dhammānam uddharityā tassa tassa nayassa yojanāwasena samānaya-nalakkhaṇo aṅkusoti. Ime pana dvepi na atthanayā. Athakho vohāranayā kammanayāti ca vuccanti.

Tattha byañjanapariyetyibhāvato hārānam pañham
mam soñasa hāre yojetvā tadanantaram tiñnam atthanayānam
disābhūta-dhamme disālocana-nayena oloketvā
puna te niddhāretvā añkusanayena tīsupi atthanayesu
nandiyāvatatipukkhala-sīhavikkilitesu yojentena suttat-
thavaññanā kātabbā.

Idha ṭhatvā cha byañjanapadāni cha atthapadānīti
suttassa dvādasa padāni dassetabbāni.

Tattha cha byañjanapadāni nāma, (1) Akkharam.
(2) Padam. (3) Byañjanam. (4) Nirutti. (5) Niddeso.
(6) Ākāroti.

1. Tattha apariyasite pade vanño akkharam,
pariyāyavasena akkharañato asañcarañato ca. 2. Pajjati
attho etenāti padam. Nāma-ākhyāta-upasagga-nipātava-
sena catubbidham. 3. Samkhepato vuttam padābhīhitam
attham byañjayatiti byañjanam Vākyam. Padasa-
mudāyoti attho. 4. Ākārābhīhitam nibbacanam nirutti.
5. Niravasesadesanattā nibbacanavitthāro niddeso.
6. Padehi vākyassa vibhāgo ākāro.

Atha padato ākārassa ko visesoti? Apariyasite
vākye avibhajjamāne vā tadavayavo padam. Uccāraña-
vasena pariyasite vākye vibhajjamāne vā tadavayavo
ākāroti.

"PHILOLOGY AND PRĀKRITS"

THE PHONOGENESIS OF THE WIDE E AND O IN GUJARĀTĪ.

By N. B. DIVATIA.

This wide sound is distinctly perceived in Gujarātī in words of the type of વેર, છેલ, and કોઠી, ગોળ, especially when they are contrasted with the narrow sound in words of the type of વેલ, વેરણું; કોઠી, ગોળ. (કોઠી means the wood-apple tree, કોઠી means a large earthen jar; ગોળ molasses, ગોળ round). The wide sound resembles that of *a* in "hat" and that of *aw* in "awl" in English. The narrow sound resembles the sounds in English "hale" and "hole."

The wide sound is peculiar to Gujarātī and Mārāvādī; it is not heard in other cognate languages¹ of India. Hindi possesses a sound which it represents by ા and ઔ (ਐ-ਐ); it does not exactly tally with the wide sound, it approximates it up to a certain point only. It may be stated roughly that the wide sound comes into Gujarātī words which had an અિ or અય, or અજ or અવ in the earlier stage (Prākṛt, Apabhraṃśa; or—where possible—Sanskrit), whereas words having an એ or ઓ originally in Sanskrit or Prākṛt stages yield the narrow sound in Gujarātī. Thus :— વિશુ (Ap.), વય્ય

I. Marāthī, which sedulously avoids the wide sound as a rule, discloses occasional exceptions, as in the final અ of neuter plural forms of nouns ending in અ, e. g. ફક્, ફક્ં (plur.), and in the final ઔ of the nominative singular of words in the neuter gender ending in the ઔ stem e. g. સૌં, વાંકડે; the ઔ in both these cases is અધવિજૃત.

In the latter case this sound is derived from the અં (Skr.) yielding અય in Prākṛt, and in the former it comes from the આતि (Skr.) becoming આં in Prākṛt, which contracts into અં, then finally becomes અય; (ફળાનિ, ફળાં, ફળં, ફળય, ફક્ં).

(Ap.), ચારું (Ap.), ગવાણું (Ap.), then ગવાણ, yield the wide-sounding, વેર, વેળ, ચોક, ગાંખ, whereas કેલી (Pr.), બાર (Pr.), give the narrow-sounding કોળ, બાર &c.

In Gujarātī this wide sound does not appear to have been systematically recognized by any special symbol, either in olden times or during the period of revival of education. Occasional and stray attempts were made to indicate the sound by marks like or sometimes by inverted *mātrā* marks, thus . In 1888 A. D., however, I pressed the claim of this sound in a pamphlet in Gujarātī on the unsettled state of spelling in Gujarātī. I renewed the fight in 1905 A. D. in a paper on Gujarātī spelling read before the First *Gujarātī Sāhitya Parisad*.

In an article in the Indian Antiquary² I discussed this question and suggested for the first time that both the sets of changes, અઈ-અઉ to ઓ-ઔ and અય-અવ to ઓ-ઔ could be reduced to a common principle by showing that અઈ-અઉ went through a process which I termed *prati-samprasāraṇa*, and thus became અય-અવ, and eventually both these અય-અવ forms (original and derived from અઈ-અઉ,) became અય-અવ, and this peculiar sound (અય-અવ) generated the wide ઓ and ઔ.

In an Appendix to his article on “Bardic and Historical Survey of Rājputānā”³ Dr. L. P. Tessitori examined my views above indicated, and showed why he differed from me and held that the wide sound resulted from a *direct* contraction of અઈ-અઉ. I felt that this contention had obvious drawbacks, and in a second article in the Indian Antiquary⁴, I went into the whole

2. Ind. Ant. XLIV, Parts, DLII, and DLVI, January and May, 1915 A. D.

3. J. A. S. Beng., N. S. XII, 1916 A. D.

4. Ind. Ant. Vol XLVI, Part DLXXXIX 1917 A. D. and Vol. XLVII, Parts DXCI and DXCII, 1918 A. D.

question at great length, drawing upon portions of my Wilson Philological Lectures (still in the press), and hoped that the question was set at rest. Dr. Tessitori, however, was not satisfied, and published his remarks on this article of mine in the Indian Antiquary last year⁵.

In order to clear up the position, I think it necessary to place my views on these remarks finally as briefly as possible. Dr. Tessitori's contentions, as seen in this last article, seem to be these:—

(a) That words like वर, वरामी, पयसार are not really instances of what I call *prati-samprasāraṇa*, but the result of the tendency of scribes to write य for इ, and that this writing peculiarity is found even in Prākṛt MSS, and he cites instances from Jacobi's *Mahārāṣṭri Erzählungen* pp. 73 (? 72), 63 61, and 60.

(b) That अइ—अउ were altered by scribes into ऐ—औ as soon as the spelling ceased to correspond to the actual pronunciation, and that Gujarātī MSS. show this ऐ—औ to represent the wide sound.

(c) That the principle of accent which I hold to govern the production or otherwise of अय—अव and then ऐ—ओ or the opposite, is not properly applicable.

(d) That perception by the ear in the case of the origin of this sound is a misleading test, the true guides are MSS. and etymology.

(e) That, in the instances given by me such as कषपटिका—कसवटिआ—कसउटी—कसोटी, घनतरकं—घणयरडं—घणइरउं—घणेहं, the change that takes place is अय to ऐ (narrow) or अव to ओ (narrow) direct and not through अइ—अउ, because the य—न there, being initial, cannot undergo *saṃprasāraṇa*.

5. Ind. Ant. Vol. XLVII, Part DXCIX, September 1918
A. D.

(f) That, in short, the wide sound results from अइ-अउ *direct* and the narrow one from अय-अव *direct*. Thus, the main point at issue is: Of the two phonetic courses:

- (a) वचन-वयण-वयृण-वेण, .
 मलिनकं-मइलउं-मयलउं-मय्लउं-मेलं,
 गवाक्ष-गवक्षख गवख-गवर्ख-गोख,
 मुकुट-मउड-मवड- मवड-मोड;

and

- (b) वचन-वयण-वह्ण-वेण,
मलिनकं-मइलउं-मैलुं,
गवाक्ष-गववर्ख-गवख-गउख-गोख,
मकुट-मउड-मोड;

which is the correct one?

In other words, of these:—(a) and (b) viz.

- (a) अय-अय-ओ, अइ-अय-अय-ओ,
अव-अव-ओ, अउ-अव-अव-ओ;

and

- | | |
|---------|----------------|
| (b) अय- | अइ-ओ,
अइ-ओ, |
| अउ- | अउ-ओ,
अउ-ओ, |

which is the correct tracing of the sound-history?

All other issues are but ramifications of this main one.

In support of my theory I cited वयर, वयरागी, पयसार, वयु, पयु etc.—as showing that the step from अइ to अय was seen in actual use as these forms are found in old MSS. and works. To get over this difficulty Dr. Tessitori wants us to hold that these forms with a य in them do not represent a *real* change from इ to य, but that the य therein is a mere writing peculiarity of the scribe. We have thus to believe that what we see as य is not य but इ—a sort of *vivartavāda* introduced in phonology ! Dr. Tessitori wishes to strengthen his contention and show us such

illusive writing even in Prākrit and cites instances from Jacobi's *Mahārāṣṭri Erzählungen*. (Pp. 73 (? 72), 63, 61 and 60); these are:—

- (a) गं for गँ (p. 72) (b) पयसारियो for पइसारियो (p. 63)
- (c) कयवय for कइवय (p. 61) (d) वयर for वहर (p. 60).

Now, गं can be taken as the Prākrit of गतं and we need not regard it as गँ written as गं, for गतं can also mean "gait" (गति). But पयसारियो, कयवय and वयर cannot be explained in any such way. Let us then take गं also as representing गँ and look for the cause of the य in all the four cases. This much is certain: that Prākrit never changes an इ to य. वयर and similar forms came into vogue (whether as phonetic realities or as the scribe's vagary) during the O. W. Rājasthāni period, which Dr. Tessitori places from the thirteenth century A. D. down to the sixteenth and part of the 17th century A. D. The chances, then, are equal or perhaps greater that these readings with a य in them must have been the result of handling by scribes belonging to this O. W. Rājasthāni period, when such forms existed as results of real substantial phonetic changes⁶. And Jacobi tells us in his preface that Ms. A was written in V. S. 1611 and Ms. B. in V. S. 1660, which dates just fall within that period. He also tells us therein that in certain points of orthography stated by him (which points, it is true, do not include the writing of य and इ) the MSS. are quite arbitrary and inconsistent. This character of the MSS. may have affected the writing of इ as well, especially as Jacobi in his "Foreward" tells us also that the MSS. A and B are corrupt and unreliable and he had to construct the text

6. गं, however, presents a difficulty. For such a change is not known. It must be regarded as a mislection, if गतं is not accepted as the original.

by using one Ms. against the other, and by using reflection and thought when both the Mss. were wrong. In these circumstances it would be unsafe to regard the writing of य for इ as dating from the Prākṛt period, and as a mere writing peculiarity. For the writing cannot be referred to a time anterior to V. S. 1660 and 1611 in the case of these Mss.

I may point out that, far from regarding forms like वयर etc. as the result of the scribe's writing peculiarity, Dr. Tessitori has treated the change of इ to य as a substantial phonetic change in his⁷ "Notes" § 4- (5), claiming such a change for the medial इ and citing the very words प्यसार (Pañcākhyāna, 246), वयर (Ibid 503), and वयरागी (Florentine Mss. 616, 126). He has there treated of the change of इ to य in *rare cases* as a writing peculiarity and cited instances like क्यम्, त्यम्, सुण्य which, I contend, are real changes, as we find them in the present day Gujarātī, spoken and written. But for वयर, वयरागी, पयसार he has not at that time claimed the theory of mere "writing peculiarity." It was when later on he replied to my first article in his paper on "Bardic Survey" that (P. 76) he extended this theory of "writing peculiarity" to वयर. And yet in the same place, at the next breath, he says that वयर, वयरागी are Prākṛt *tatsamas* and that the अय may be a corruption of Skr. औ instead of a modification of O. W. Rājasthānī अइ. In my reply article I showed that this could not be, the change of औ to अय being unknown to Prākṛt.⁸ Now, in his final rejoinder, Dr. Tessitori adheres to the "writing peculiarity" theory, and yet in foot-note 6 he again says that वयरागी is a *tatsama* "in part modelled on वयर". Now, what are we to

7. "Notes on the Grammar of the O. W. Rājasthānī," reprinted from the *Indian Antiquary*.

8. Indian Antiquary, December 1917, P. 299.

accept?—Real phonetic change, as stated in “Notes” 4-(5)? Or *tatsama* theory, as given in “Bardic Survey” (P. 76)? Or “writing peculiarity” theory? I see absolutely no reason to give up the first theory of real phonetic change. I have already given my reasons in previous articles. I had put forward the theory that “changes in a language cannot proceed on regular lines of uniform march, some forms will linger, some progress, some go backwards and forwards till a final settled state is reached.” Dr. Tessitori is sceptical about, and laughs at, this theory and considers that it requires to be proved. For proof, I would simply point to the cases of reversion of ल to ळ and back to ल and again to ळ; न to ण and back to न which I have already cited in my article ; also to the fact that forms like करइ, करि and करे are seen in backward and forward movement in MSS. of different periods, till करे was the finally fixed form; so also अछइ, छह, अछे, छे are found with and without अ in a similar state of flux and reflux. Lastly, Dr. Tessitori himself elsewhere says:—

“The passing of one language into another being always effected through gradual steps, it is natural that whenever the older language is made to finish and the younger one to commence, some of the features of the former must be found in the early stage of the latter and likewise some of the features of the latter in the ultimate stage of the former.”

See also Beames (*Comparative Grammar*, Vol. I P. 238, §60).

Surely my theory differs very little, in principle and in effect, from the one adumbrated in the above quoted passage. Dr. Tessitori’s final argument is that अइ-अउ of O. W. Rāj. were changed into ऐ-औ in Māravādi and Gujarāti

writing about the sixteenth century⁹ A. D., when the Māravādī and the Gujarātī found that the spelling અઃ-અર no longer corresponded to the actual pronunciation. I contested the statement that old Gujarātī writing possessed ઐ-ઔ in such cases (i. e. for અઃ-અર in their progress towards the wide sound). Dr. Tessitori contends that even if these ઐ-ઔ were found in Māravādī MSS. alone, it would suffice. I fail to see how. For, as I have pointed out, the ઐ-ઔ in Māravādī MSS. are but a feeble attempt to symbolize the wide sound. I maintain that અઃ-અર passing through the અય-અવ and અય-અવ् stages attained the wide sound and for want of any better symbols the Māravādī MSS. represented it by the diphthongal signs ઈ. But Dr. Tessitori goes a step further and maintains that old Gujarātī MSS. too possess these symbols ઈ for such cases, and he quotes an extract from a Gujarātī Bālāvabodha to a "Jambucaritra" (a Jain work) which has વૈઠો...સાંભલૈ છા તિવારાં...ભગવંત નાં વાંદાં...કરાં...દેવલોકાં...છા. Dr. Tessitori finds in the simultaneous position of ઈ and અઃ here a proof that અઃ-અર led direct to ઐ-ઔ without any intermediate step like અય-અવ. It is necessary to know where this Ms. was written and whether by a Gujarātī or by a Māravādī scribe? Without having a careful look into the Ms. which is quoted from, it would be difficult to make any pronouncement. But in view of Dr. Tessitori's assertion that the above is only one of many MSS. in which ઈ is used side by side with અઃ I may just hint that this admixture of ઈ and અઃ may be the result of Māravādī scribes copying Gujarātī MSS. I have recently made a careful scrutiny of

9. This is inconsistent with the period assigned by Dr. Tessitori to O. W. Rājasthānī. For, he holds rightly that O. W. Rājasthānī extended at least up to the end of the 16th Century A. D.

many old Gujarātī MSS. of the period under consideration, with the result that nowhere do the Gujarātī MSS. use ા or િ for the evolutes of અ-અર and that where, in very rare instances these diphthongal symbols are found, they owe their presence to the fact that the scribe was a Māravādī or one under Māravādī influence.

But a greater confusion attends Dr. Tessitori's view about the actual pronunciation of ઐ-ઔ turned out from અ-અર (according to him). What was the actual pronunciation? We should have expected the answer to be—the wide ઓ-ઓ. But Dr. Tessitori gives us varying answers. Thus:—

(1) The ઐ-ઔ were pronounced as diphthongs. (Ind. Ant. September 1918, P. 227).

(2) *Tadbhava* ઐ-ઔ were not pronounced exactly the same way as *tatsama* ઐ-ઔ but they were probably pronounced in a way similar to the ઐ-ઔ of Hindi. (Ibid, P. 228 and n. 10).

(3) The Hindi ઐ-ઔ sounds are identical with the wide ઓ-ઓ of Māravādī and Gujarātī, except that they represent a slightly earlier stage, the very same stage of the Māravādī Gujarātī diphthongs as they must have been pronounced previous to their transition into the wide vowels, ઓ-ઓ. (Ibid Pp. 231-232).

Now, a number of questions rise up on a perusal of these more or less conflicting statements:

First and foremost:—If ઐ-ઔ were pronounced as diphthongs, how did they all of a sudden jump into the the wide sound? This my doubt (Ind. Ant. Jan. 1918) received no answer.

Secondly, What are *tadbhava* ઐ-ઔ? As a matter of fact, there are no ઐ-ઔ in Prākṛt or Gujarātī, except in rare instances like સૌ, છૈયો, મૈયો, wherein the sound is exactly like the *tatsama* ઐ-ઔ. Probably Dr. Tessitori

means by “*tadbhava* आ॑-आ॒” the really widish sound of Hindi, in fact he suggests this cautiously in note 10 at P. 228, for he uses the word “probably.” This caution, combined with the fact that Dr. Tessitori at first says (P. 227) that the आ॑-आ॒ were pronounced as diphthongs,-- as also the expression “presumably like the *tatsama* आ॑-आ॒” (Bardic Survey, P. 76, last para, ll. 5-6), drives me to the suspicion that Dr. Tessitori is undecided as to the exact nature of the आ॑-आ॒ used in Māravādī (and, according to him, in Gujarāti); that he feels the gradations of the sound from आ॑-आ॒ to ओ॑-ओ॒, but represents them haltingly.

Thirdly—taking Dr. Tessitori’s statements all together, especially No. (3) noted above, the following appears to be his serial view:—

(a) Pure diphthongal sound--found only in Sanskrit and in *tatsama* words in the vernaculars;

(b) आ॑-आ॒ sounded not like pure diphthongs, but fighting shy of the wide sound (ओ॑-ओ॒) as is the case with Hindi, and which, Dr. Tessitori thinks, existed in Māravādī (and, according to him, in Gujarāti) before the true wide sound (ओ॑-ओ॒) was arrived at;

(c) आ॑-आ॒ as representing the present day true wide sound in Māravādī.

Taking this as the fairest construction of Dr. Tessitori’s view, I maintain what I stated before, that the आ॑-आ॒ of Hindi stand by themselves, and that the early Māravādī आ॑-आ॒ did not represent this semi-wide Hindi sound, but were but wrong symbols for the true wide sounds ओ॑-ओ॒. For there are hardly any grounds on which the theory suggested in (b) above for the old Māravādī sound can be based. Anyhow, when the symbols आ॑-आ॒ cover so very divergent sounds as noted above, how can we accept Dr. Tessitori’s recommendation for the adoption of those symbols for the representation of the true wide sound?

It must be borne in mind that ऐ—औ, as diphthongs, possess the component sounds अ and इ, and अ and औ, not so closely fused together as अ—ओ do, and that the wide ऐ—ओ are of the latter kind (संकीर्ण संधिस्वर) rather than of the former kind (संस्पृष्ट संधिस्वर). Thus अ—ओ would be a better sign.

In the course of my arguments I have appealed to ear-perception in tracing the genesis of the wide sound as contrasted with the narrow sound; thus, I have shown that अय—अव् (after the loss of the द्रुततर final अ in अय—अव्) if sounded as in वयर् (from वयर) — गवख् (from गवख), present to the ear the sound nearest to the wide sound ऐ—ओ, whereas अइ—अउ, sounded as in अवश्व (from अवयव), नउल् (from नकुल्), present the conditions of the narrow sound. Dr. Tessitori regards this ear-test as misleading. According to him the real facts are that अइ—अउ do not give अ—ओ (narrow), but ऐ—ओ (wide), and अय—अव् do not give अ—ओ (wide), but अ—ओ (narrow). According to him घनतरकं gives घणरं (G.) through the अय in घणयरउं, and कषपाष्टिका gives कसोटी (G.) through the अव in कसवटी. I go a step further and hold that the narrow sound results after the अय—अव् pass through the अइ—अउ stage; nothing else is phonally possible.

Dr. Tessitori's view that अय—अव् generate the narrow sound *direct*, and अइ—अउ generate the wide sound *direct*, will land him into a dilemma in certain cases: Take, for example, नकुल—नउल—नोळ (G.), बकुलसरी—बउलसरी—बउरसली by metathesis)—बौरसली (G.). Here, if he interpolates an अव between the अउ and ओ stages, he will have to accept *prati-samprasāraṇa*, which he has all along been opposing; if he does not interpolate an अव he must accept the *direct* change of अउ to ओ (narrow). He cannot get over this situation by bringing in the कथुति theory to his rescue. For, according to him, कथुति comes

in if the ત is preceded by a long vowel whereas here the preceding vowel is short.

In matters of this kind oral tradition and demonstration are essential; hence the value of ગુરુસંપ્રદાય. Mere dead formulæ and symbols are useless without such teaching. Live sound must be presented to the ear. Even Dr. Tessitori himself, when he had to rely on dead spelling and symbols before he arrived in India, was under the impression that Gujarātī turned the અઝ-અત of O. W. Rāj. to આ-ઓ and Māravādī to ઐ-ઔ. He perceived the wide sound only after hearing it in India. And I am sure that he will perceive the true sound-values of individual words in Gujarātī after he visits Gujarat and hears the various sounds carefully.

Dr. Tessitori's view is based on what is visible to the eye on the surface; thus, he finds ઘનતરકં-ઘણયરં-ઘળેરં; કપપણિકા-કસવટી-કસોટી and seeing અય-અવ as precursors of the narrow આ-ઓ he at once regards them as the *immediate* precursors. I feel a phonal difficulty in obtaining a narrow sound from અય-અવ, and therefore interpolate (with good reasons and evidence) a *samprasāraṇa* stage અઝ-અત, which alone can yield the narrow sound. To this Dr. Tessitori's objection is that *samprasāraṇa* is not possible if the વ (or ય) is initial, and in these words the વ and ય are initial with reference to the ઉત્તરપદ or the suffix (as the case may be); for instance, says he, વિર and અ-વસ retain the વ intact because they are initial, but નવમત becomes નઉમત. He further seems to trace the cause in the presence or absence of stress on the વ (and ય); thus, according to him કસવટી becomes કસોટી (narrow) from અવ direct, when the વ is stressed, and it becomes કસઉટી and then કસોટી (wide) when the વ is unstressed--(કસોટી—wide--may be Māravādī, but it is not Gujarātī which has only the narow ઓ in કસોટી).

Thus he believes in the shifting of accent just as I do, but we arrive at different results: with him the stress on व or य prevents *samprasāraṇa* and its loss causes *samprasāraṇa*, while my theory, on the other hand, is that absence of accent on व or य (in अव-अय) — strictly speaking, on the अ thereof—leaves the preceding अ accented, and the अ of व and य becoming हृततर, is dropped, thus creating अय्-अव् as the cause of the wide sound; whereas an accent on such व or य (i. e. on their अ) causes *samprasāraṇa* of the व or य.

The reason is this: the principle governing *samprasāraṇa* is quite different from what Dr. Tessitori supposes. *Samprasāraṇa* is not prevented by the position of व or य as an initial letter of a word, nor is it caused by its not occupying such position. The principle governing *samprasāraṇa* in words coming into the vernaculars seems to be this: *samprasāraṇa*. arises from the softening of the effort in pronouncing the semi-vowels, व and य; it is a liquefaction of these sounds. This softening of the effort occurs, is rendered possible, when the य or व occupies an accented position. It will be perceived that the य and व first get softened into the लघुप्रयत्नतर stage, and then that leads to the complete liquefaction into the vowel stage. This will be clear when we remember that the गुरुप्रयत्न य-व possess a larger consonantal element than vocal, while the लघुप्रयत्नतर contain a larger vocal element than consonantal. This view will enable us to truly appreciate the very happy names coined by Dr. Hoernle for the two aspects: "semi-consonants" to express the strong य-व and "semi-vowels" to denote the weak य-व (*Vide* his Introduction to the *Prākrita-Lakṣaṇa*, Page XXVII, § 4).

However, when the व or य is purely initial i.e. at the beginning of a word which is not an उत्तरपद in a compound or a suffix, this power of the accent is counteracted by the necessity of pronouncing the य or व strongly, as they have no preceding support, and so वयर, यवन retain their initial व and य respectively unsoftened, although they are accented. This leads up to the condition essential for *samprasāraṇa*; viz: *intervocalic position of य and व*. For, when य or व comes between two vowels, a vocalic atmosphere is created by the vocalizing influence of the two adjacent vowels, and we get the *samprasāraṇa*. This is possible only when the अ of य-व is accented, for, otherwise, the first अ (of अय-अव) gets the accent, and this final अ of अय-अव becomes गौण and द्रुततर and gets dropped; and so अय-अव come in and give the wide sound. (Thus, the very stress which, as belonging to the initial य or व of an उत्तरपद or suffix, Dr. Tessitori regards as *preventive of samprasāraṇa*, is with me the very condition furnishing a causative principle—viz: a vocalic surrounding—for *samprasāraṇa*, (of course, provided that a vowel also precedes the य-व). Thus, the two conditions for *samprasāraṇa* are:—

(a) Intervocalic position of य or व and (b) Stress on the second vowel, i. e. the vowel of य-व.

Dr. Tessitori (P. 229) seems puzzled at this accent theory of mine. He rightly guesses that the accent I speak of is not the old Sanskrit accent. It cannot possibly be where Prākrit and post-Prākrit word-forms are concerned.

This being the case, Dr. Tessitori's contention that my accent does not fall on the same syllable on which the Sanskrit accent would fall, and so forth, and his instances at footnote 12, P. 229, must be brushed aside as more or less irrelevant.

But Dr. Tessitori objects to my way of locating the accent relatively as between the अ and इ (or उ), or between अ and य (or व). He thinks that instances like चित्तऊङ्ग and पण्णउङ्गी are irrelevant because these are cases of a long ऊ (अऊ) not of अउ (short उ). I am afraid Dr. Tessitori has overlooked the object I have in view in giving such instances. It is to derive from cases of undoubted accent (the long vowel being necessarily accented) the underlying principle which prevents *prati-samprasāraṇa*.

Finally, Dr. Tessitori, in dealing with my tentative theory about foreign influence in the matter of the wide sound, resorts to a very questionable argument. I have simply stated that in view of the appearance of the wide sound during a period coinciding with the intellectual advancement during Akbar's time when Persian and Arabic flourished in India, this wide sound in words of the type of वय्ण (वैण)-कवडी (कोडी) found a sort of kinship in the Arabic-Persian words of the type of हेरान (हेरान), कव्ल (कोल), and "*was matured under the indirect influence of these foreign languages.*" Dr. Tessitori says that such a theory is "as ridiculous as it would be to impeach English because it possesses words like "hat" and "hot" whereof the vowels are pronounced much like the औ-ओ of modern Gujarātī."

This would be really reversing the sequence and relation between cause and effect, for the wide sound began four centuries ago, while the English contact with Gujarātī is only a century old, whereas the Arabic-Persian sound and the Māravāḍī Gujarātī sound flourished side by side in India, both undergoing the operation of similar formative forces. This need not be pooh-poohed as absurd, for the अय-अव् phonally generate the औ-ओ in either case. It must be noted particularly

that the Arabic-Persian sound is not the wide ઔ-ઔં
but અય-અવ; only in coming into Gujarāti from Arabic-
Persian it is that such words transform the અય-અવ
into ઔ-ઔં.

If phonal influence from English were to be traced, one could very well note the foreign sound of ફ (f) that is imperceptibly creeping into Indian phonology, which centuries later may be justly traced to English (and partly to Persian) influence. The foreign sound of ફ is dento-labial, while the true Indian sound is purely labial; and yet we often find Indians (who have come under English influence) pronouncing the ફ even in Sanskrit words dento-labially: ફલ (fala) instead of ફલ (phala).

To sum up:—The cardinal difference between Dr. Tessitori and me lies in the fact that while I trace the wide sound of ઔ-ઔં to અય-અવ (through અય-અવ) both in the case of original અય-અવ as well as the અય-અવ evolved by *prati-samprasāraṇa* from અઇ-અઉ, and the narrow sound of અ-ઓ to અઇ-અઉ both in the case of original or derived અઇ-અઉ by *samprasāraṇa* from અય-અવ, Dr. Tessitori inverts the process and believes the wide sound to have come direct from અઇ-અઉ (original or derived by *samprasāraṇa* from અય-અવ) and the narrow sound direct from અય-અવ, (original only, I suppose; for a derived અય or અવ will necessitate *prati-samprasāraṇa* which is not recognised in the learned Doctor's phonetics, at least in this connection). I base my conclusions on the phonal impossibility involved in tracing the wide sound from અઇ-અઉ direct and the narrow one from અય-અવ direct. I hope I have given sufficient reasons in support of my conclusions in this paper, supplementing those given in my two contributions to the Indian Antiquary on this subject.

APABHRAMŚA LITERATURE AND ITS IMPORTANCE TO PHILOLOGY.

By P. D. GUNE.

1. The importance of the Apabhramśa language and literature is very great. According to Pischel, we have to look upon Apabhramśa, not as one language or dialect, but as so many popular dialects of India. They also later on developed a literature of their own.

2. What is the extent of the Apabhramśa literature ? Until recently the only literature in Apabhramśa known to scholars and recognised by them as such, was what was found (a) in the fourth Act of Kālidāsa's *Vikramorvāsi*, (b) in Piṅgala's *Prākṛta piṅgalasūtra* (c) in Hemacandra's *Siddhahemacandram Sūtras* IV, 329 to 446, where he quotes from various sources, (d) in Hemacandra's *Kumārapālacakrīta*, otherwise called *Prākṛtadvyāṣrayakāvya*, Sarga VIII vs. 14-82, which professedly illustrates his own grammatical rules, and lastly (e) stray pieces found in Jain legends¹ like the *Kālakācāryakahā* and that of the destruction of *Dvāravati* and in Alāmkāra² works like *Sarasvatī-kaṇṭhābharaṇam*, {*Dasarūpāvaloka* and *Dhvanyāloka*. It is to be remarked that only stray verses in Apabhramśa here and there are found scattered in these works. To the Apabhramśa verses in the *Sarasvatī-kaṇṭhābharaṇam* (Borooh's edition) mentioned by Pischel, are to be added those at p. 58, 74, 76, 158, 174, 261, 348, 373. Besides, some verses are to be found

1. The text wrongly reads thus for सत् which the context requires.

2. Wrong for तिः

in the *Vetālapancavimśatikā*, *Simhāsanadvātriṁśikā* and in *Prabandhacintāmaṇi*.

The genuineness of the IVth Act of *Vikramorvāsi*, which was called into question by scholars like S. P. Pandit and Bloch, is now generally accepted.³ But the fact remains that the act has suffered by the dictum of the above-mentioned scholars. It requires to be again edited with care by one who knows Prakrit well.

Pischel has not mentioned *Kumārapālacakrita* as it was published in 1900, when his grammar was also in the press. The *Prākṛtapiṅgala* has been edited again in the Bibl. Indica by Candramohan Gosha, 1902; but it is apparently no improvement upon Sivadatta and Parab's *Kāvyamāla* edition.

3. Since Pischel's time, there has been a considerable addition to our knowledge of the Apabhraṁśa literature. This is partly printed and partly yet in MSS.

I (a) The *Bhavisayattakahā* of Dhanavāla is a work entirely written in Apabhraṁśa. It is divided into twenty-two sandhi or chapters, each sub-divided into from 10 to 20, sometimes 25, *ghattā* stanzas. This work has been edited in the Gaekwad's Oriental Series by the late Mr. C. D. Dalal. It awaits an introduction only and will be out probably next year. It begins:—

जिणसासणि साह णिद्धुअपावकलंकमल ।
सम्मतविसेषु निसुणहुं सुयपञ्चमिहि फल ॥
पणविपिणु जिणु तइलोयबंधु दुत्तरतरभवणिवृद्धयंधु ।
भव्यणवयणपंकयपतंगु कयकसणमोहतिमिरोहभंगु ।
णीसेसभरियमुवर्णंतरालु उक्खयदुक्कम्मतरमूलजालु ।
अविसाउ अराउ अकोउहङ्गु कंदप्पदप्पदलणेकमङ्गु ।

and ends:—

निसुण्ठंतपठंतहूं परिच्यितंतहूं अप्पहिय ।

धणवालिं तेण पंचमि पंचपयार किय ॥

The author occasionally finishes a *sandhi* with his own name, e.g.

एत्तियए कहेवि धणवालिं सरसइ नमिय ।

भविसत्तहो कव्वि संधि समाणिय पंचमिय ॥

This Dhanavāla or Dhanapāla and the Dhanapāla often quoted by Hemacandra in his *Desināmālā* can not be one and the same. The other Dhanapāla is the author of (i) *Rśabhapañcāśikā* (Ed. Kāvyamālā), (ii) *Pāialacchināmālā* (edited by Bühler and Pischel, B.B. and Co. Bhavanagar) and (iii) *Tilakamañjarī* in MSS. According to the last verse of *Pāialacchī*, Dhanapāla completed the work in Samvat 1029, i.e.A.D. 973. He therefore belongs to the latter half of the 10th century A. D. In *Kumārapālapraban-dha*, a late work of the 15th century, MS. 19J of 1869-70 of the Deccan College Collection now at the Bhandarkar Institute, mention is made in folio 79a of the *Rśabhapañcāśikā* of Dhanapala having been repeated by Hemacandra before Kumārapāla. This Dhanapāla was born in a Brahman family, and then turned Jaina whereas our Dhanapāla is born in the Dhakkadavaṇi-gvāṃśa, his parents' names being Māesara and Dhanasiridevi respectively.

(b). The *Kumārapālapratibodha* of Somaprabhā-cārya, (ed. Muni Jinavijayaji, Gaekwad's Oriental series) contains much Apabhraṃśa. This is a bulky Jain work, purporting to be the enlightenment of the young king Kumārapāla by the advice of the polihistor Hemacandra. It has five long Prastāvas broken by different *Kathās* or stories, drawn as illustrations of particular

merits or vices. Thus there is *Nalakathā* which illustrates the evils of dice-playing, *Pradyotakathā* as illustrating evils of debauchery, *Tārā* and *Rukminīkathā* as examples of the virtue of faithfulness and the like. The bulk of the work is written in what Jacobi calls *Jaina-Māhārāṣṭrī* or simple *Māhārāṣṭrī* and contains both prose and poetry. One or two *Kathās*, e.g. that of *Makaradvaja* are written in Sanskrit. But the last *Prastāva* is important from one point of view as it contains some entire *kathās* in Apabhraṃśa, such as (i) the *Jivamanakaranaśamālāpakhathā*, containing 105 stanzas in Apabhraṃśa; (ii) the *Sthūlibhadrakathā*, having 106 stanzas (with the exception of a very few *Gathas* in *Māhārāṣṭrī*) in Apabhraṃśa; (iii) the *Dasārṇabhadrakathā* which is half Apabhraṃśa and half Sanskrit. Besides Apbh. stanzas are scattered over the other parts of the work. e.g.

वडरुक्खहं दाहिणदिसिहि जाइ विदव्विभहि मग्गु ।
 वामदिसिह पुण कोसलिहि जहिं रुचइ तहिं लग्गु ॥ from नलचरितम्
 खडु खणाविय सहं छग्ल सहं आरोविय रुक्ख ।
 पहं जि पवत्तिय जन्न सहं किं बुब्बुयहि मुरुक्ख । from अमरसिंहकथा
 अह कोइलकुलरवमुहुल भवणि वसंतु पयहु ।
 भहु वे मयणमहानिवह पयडिय विजयमरहु ॥ from अमरसिंहकथा
 एके दुन्रय जे कया तेहिं नीहरिय घरस्स ।
 बीजा दुन्रय जइ करउं तो न मिलउं पियरस्स ॥ from शीलवतीदृष्टान्त
 सीहु दमेवि जु वाहिहइ इकुवि जिणिहइ सितु
 कुमरि पियंकरि देवि तसु अप्पहु रज्जु समतु ॥ from नरदेवकथा

The author Somaprabha gives some information regarding himself in the *prastasti* at the end of the work. He was the pupil of *Vijayasiṁhasūri*, who again was the pupil of *Ajitadevasūri*. He wrote the work in the house of one *Siddhapāla*, who was a favourite of king *Kumārapāla*. He wrote it in (evidently *Samvat*) *Śasijaladhisūryavarse*, i.e. 1241, which

corresponds to A.D. 1185, i.e. twelve years after Kumārapāla's death. He was therefore an immediate successor of the great Hemacandra.

(c) Another work containing some Apbh. is the *Upadesatarangini* of Ratnamandiraganin edited by H. B. Shah, Benares, V.S. 2437. (A.D. 1911.) This is a late work of promiscuous nature, full of Sanskrit and Prakrit quotations. The Sanskrit quotations are generally from the *Mahābhārata* and the *Sātakas* of Bhatṛhari and the prakrit from different Āgama works and other sources. There is little that belongs to the author, but that little is written in bad Sanskrit; e.g. *satrāgāro manditah*, p. 42; *Jambudvīpo jaladhiparighābhūṣitah*, p. 142; *bumbām pātayan*, p. 76 (from Gujarāti, *bīm pādavum*); *kutumbām vilapantam dr̥ṣṭvā*, p. 67 etc. There are about 25 passages that can be strictly called Apbh.; there are some more which lie on the borderland of Apbh. and old Gujarāti. A few might be quoted here with advantage:-

प्रत्यपरिकथाह कि करद दिल्लौ भगवांह ।
कि वरिसन्तो अम्बुहर जोइ समविसमांह ॥
सुन्दर सर अमुराह दलि जल भीधरुं बयणोहि ।
उदयनर्मिदिहि कटीउं तीहं नारेनयणोहि ॥

The author was a pupil of Nandīratna. This latter was the pupil of Ratnāśekharasūri, who again was the pupil of Somasundarasūri, the head of the Tapāgaccha.

(d). The *Supāsanāhācariyam* of Lakṣmaṇaganin, parts I & II (3rd to be out) edited by Pandit Haragovind Das Seth, Benares 1918, contains some Apbh. here and there. The body of the work is in Māhārāṣṭri. Some examples are:-

केवि मळव सजंति कमदहुरं अवरि गायंति सुहकंठरवधुंदरं ।
केवि उत्तालतालाउलं रासयं कुणहि करनच्चियं अवरि वरलासयं ॥

केवि हरिसुद्धरा तियसगलदहुरं कुणहिं हयहेसिय केवि सुइबंधुरं ।
 केवि गयगज्जियं कुणहिं मयभिभलं अनि मुट्ठीहिं पहरन्ति धरणीतलं ॥
 नय धिप्पहि सुसणेहि नहु विणझहि गुणिहि ।
 नहु लज्जह नय माणिण नहु चाडुयसयहिं ।
 नय खरकोमलवयणि न विहवि न जोव्वणिण ।
 दुग्गेज्ज्ञाउं मणु महिलहं चितह आयरिण ॥ p. 115
 कईयावि महुरकलयंठकंठ सञ्ज्ञाइ पयट्टह ।
 कईयावि गहियसुअंधकुसुम देवचणि वट्टह ।
 कईयावि बहुभवभमणभावण मणि भावह ।
 कईयावि सुहरम्मि जिर्णवम्मि लीण मणु ठावह ॥ p. 116

Besides stray verses at about sixteen places, there are Apbh. passages of considerable length at pages 50, 190, 212, 286, and 440.

II. Then there are some Jaina MSS. in Apbh. in different libraries. Many of them were not so far recognized as Apbh. works, as the catalogues put them under the promiscuous heading of Prakrit. Such are:—

(a) The *Sañjamamanjari* of Maheśvaraśūri, No.1359 of 1886-92 of the Deccan College Collection at the Bhandarkar Institute. It is written entirely in Apbh. and contains 35 verses in *dodhaka* or *dohā* metre. It begins and ends thus:—

नमिउण नमिरातिअसिद्धिदिसिरिमउडलीठपयवीडं ।
 पासजिणेस संथमसुरूवसंकितणं काहं ॥ १
 समणह भूसण गयवसण संजयमंजरि एह ।
 सिरि महेसरसूरिगुरु कन्नि कुण्ठत सुणेह ॥

The *dohas*, only 35 of them in all as said above, are written in perfect style; e. g.

संजमु सुरसद्धिहि युअउ संजमु मोक्षदुवारु ।
 जेहिं न संजमु माणि धरिउ तहु दुत्तर संसारु ॥
 विरमणु पंचह आसवह इंदियनिगगह जत्थ ।
 सक्षसाहं दंडह दमणु सतरस संजमु तत्थ ।
 अलिउ मे जंपहु दुव्वयणु पर दूमिज्जू जेण ॥

इकिणि इंदिय मुक्लिण लब्धाइ दुम्बत सहस्र ।

जसु पुण पश्चाइ मुक्ला कह कुसलतणु तस्स ।

ना परदोस समुद्रवाइ मिच्छपवत्तणसज ।

सा जीहा मह मुहकुहरि जिण जम्मवि म करिज ॥

The MS. was written at the instance of Śāntisūri in Saṃvat 1561, i. e. A. D. 1505. Maheśvaraśūri must therefore have lived long before this. At the end of another work of Maheśvaraśūri, in the Government Collection at the Bhandarkar Institute, Saṃvat 1365 is mentioned, which is probably the year of the copy. If so, our author must have lived prior to A.D. 1309. The curator, Baroda central Library, mentions a Pattan MSS. of the *Dnyānaśāraṇīcāmikathā* by Maheśvara of 10th century Saṃvat. Is this Maheśvara and our author the same?

(b) The commentary on this work by a pupil of Hemahaṇḍaśūri is also important from our point of view. It is perhaps more valuable, as it is voluminous. The commentator must also have lived before A.D. 1505, the date of the copy of the *Saṇjamaṇījari* together with its commentary. It contains lots of Apabhrāṁśa quotations, some of very considerable length. The smaller ones are generally of the nature of *subhāṣita* verses that must have been familiar in the days of the commentator ; e.g.

दिर्हैं जो नवि आलवाइ कुसल न पुच्छाइ वत्त ।

तसुतणाइ नवि जाईंइ रे हयडा नीसत्त ॥ fol. 716

रासहु कंधि चडावियाइ लब्धाइ लत्त सहस्र ।

आपहणे कारि कम्मडां हिया विसूरहि किस्स ॥ fol. 826

मरण ति बीहाइ बप्पडा धम्मि जि मुक्का रंक ।

सुकिअ सुसंचिअ जेहि पर ते तिणिवार निसंक ॥ fol. 146

Here is a description of a city and its suburbs :—

अहिरामारामवणाउलाइं सुरसुरहिसमाण य गोउलाइं ।

जहिं सयवर वावीसाइं वराइं वणसिरीभ रमणिकेलीहराइं ॥

मयमत्य मयगल गुलगुलंत वरतरल तुरस्य घपमपधपन्ता ।
जिहि रहवर धोरणि घडहडन्त फरफारक पाइक घमघमन्त ॥
जहि कूव मणोहर सरवराइं नरनारी जणघणसुंदराइ ।
रमणीअरमणि जणु अच्छराइं जिहि वहइ सरिअ किरिजलहराइ ॥
जहि वसहि लोय अद्वारवत्र जहि पउणबहत्तरि नरवरन्न ॥
जहि पवरचहुद्वृं मेनवहुद्वृं जलयलदीवंतरसत्थवहु ॥
जहि नागरसागर किरिनिवास जहि लील करइ लीलविल्लास ॥
जहि सुंदरमंदिरदेहुराइ नणु सिच्छइ लच्छीहरवराइ ॥ fol. 76

At folio 106 begins the story of a king of Takṣaśilā named Tivikkama or Trivikrama. This runs over three folios, and is given as an illustration of the merits of obeisance to Jina.

I shall only quote the beginning of the story, which is interesting in itself:—

अथिय नाभिण नयरु तखसिल । पञ्जपक्खवच्छवलसिलमणिसिलोह सहवद्दसुरहर
हरिणच्छ हरिणकमुहमहिलचक्कचक्कमणमणहर ।
धणकणकंचणरथणनिहि सुरपुरसरिसायाह ।
सेसु फणावलि किं ठियउ परिर्भिउ पायाह ॥
तहि तिविक्कमु अथिय नरनाहु तिअलोअविक्काऊ ।
जसि दलियसयलवलिरायविक्कमु । सरपंकयसंगहिय मंख नावइ तिविक्कमु ।
तासु मंगलदेवि पियकोमलकमलपयच्छि ।
रुवि विणज्जिय इश्मणि कणयच्छवि नं लच्छि ॥ fol. 106.

It is to be noticed that this commentator also, like the commentator on *Upadesatarañgiṇī* quotes from various Sanskrit and Prakrit works like the *Mahābhārata*, *Vāyu* and *Matsya Purāṇas*, the *Śatakas*-chiefly the *Vairāgyasataka*-of Bhatṛhari, and the Prakrit Āgamas. Apabhraṃśa quotations like *rāsahu kandhi ca dāviya* etc. at fol. 826 or *divasi pahillai pāhunu sonāsamu vikāi* fol. 54a look like stray subhāṣita verses current in the author's time and show that there must have been a rich literature in Apabhraṃśa. The long story that he has quoted corroborates this view. It reads like what to-day is called *Kahāṇī* or *Rāsa* in folklore.

(c) The *Tisat̄himahāpurisaguṇālankāra* of Pupphadanta is an important work in Apabhrāmśa. It forms No. 370 in section X of the Catalogue for search of MSS. for the years 1879-80 and is entered as an incomplete Prakrit work in 304 folios. The Ms. is to be found in the Deccan College MSS. Collection, now deposited at the Bhandarkar Institute. The work is divided into sandhi or chapters, as most Apabhrāmśa works are, and has 27 such sandhis. The number of stanzas in a Sandhi varies from 15 to 25, sometimes however, a sandhi has only nine stanzas. e. g. chapter VI, or as many as 29, e. g. chapter IX.

It begins :—

सिद्धिवहूमणरंजणु परमणिरंजणु भुवणकमलसरणेसरु ।

णाविकि विग्रविणासणु णिलवमसासणु रिसहणाहु परमेसरु ॥

सुपरिक्षितय रक्षितय भूअतणुं पञ्चसवधुन्नयदिव्वतणुं ।

पथडियसासयथयवरहं परसमयभणियदुण्णयवरहं ।

सुहसीलगुणोहणिवासहरं देविदथुअं दिव्वासहरं ।

जुइणिजिय मंदरेमेहलयं पविमुक्ताहरमणिमेहलयं ॥

etc. etc.

अवस्थे पणवि सम्मइं विणिहयदुम्मइं कोवपावविद्दंसणु ।

जसु तितिथ मइ लद्दउ णिगिसामद्दउ णिमलु सम्मइंसणु ॥

Every sandhi ends with the following words :—

इय महापुराने तिसाट्टिमहापुरिसगुणालंकारे महाकइप्पदन्तविरइए

महाभवमरहाणुमणिए महाकव्ये सम्मइसमागमो णाम । etc.

(the name and number of the pariccheda or sandhi.)

The poem is said to be approved by the most noble (king) Bharaha ; but it is not clear who this Bharaha is.

The seventh stanza in sandhi I is important as it contains an explicit reference to the *Setubandha* of Pravarasena, side by side with that to the *Rāmāyaṇa*.

सियदंतपंतिभवलीकवासु ता जंपइ वरवायाविद्यासु ।

भो देवीणंदण जयसिरीह किं किज्जइ कव्यु सुपुरिससीह ॥

गोवजिएहिं ण धणदिणोहि सुरवरचावैहिं व णिगगुजेहिं ।

महालियाचित्तहि णं जरघरेहि छिदणेसिहि णं विसहरेहि ॥
जडवाइएहि णं गयरसेहि दोसायरेहि णं रक्खसेहि ।
आचक्षिक्यपरपुद्रीपलेहि वरकइ णिन्दिजइ हयखलेहि ॥.
जो वालयुद्धसंतोसहेउ रामाहिरामलक्ष्मणसमेउ ।
जो सुम्मइ कइवइ विहियसेउ तासु वि दुजणु किं परि ण होउ ॥
etc. etc.

The reference in line 7, by the words *vālavuddha-santosahēu* is to Vālmīki and his work *Rāmāyaṇa*; and that in line 9, *Jo summai kāivai vihiyasseu* is clearly to Pravarasena of the *Setubandha* fame. In the ninth stanza the poet mentions several predecessors of his; some, like Kapila and Vyāsa almost mythical, others like Bhāravi and Bāṇa of living memory. It is important to note that Puṣpadanta mentions Rudraṭa and not Hemacandra, when speaking about his knowledge of poetics. Had Hemacandra, who was looked upon as a literary colossus by all his Jaina successors, and quoted with reverence, lived before him, he certainly would have made respectful mention of his name, as for instance Somparabha has done (see supra). But it is to be remembered that he was a Digambara. The passage which deals with this subject is worth quoting and reads thus:—

अकलंक-कविल-कण्यर-मयाइँ । दिय-मुगय-पुरंदर-णयसयाइँ ॥
दंतिल्ल विसाहिलुद्धरियाइँ । णउ णयाइँ भरहवियारियाइँ ॥
णउ पीयाइँ पायंजलिजलाइँ । अझहास-पुराणाइँ णिम्मलाइँ ॥
भावाहिउ × × × भासु वासु । कोहलु कोमलगिरु कालिदासु ॥
चउमुहु सयंभु सिरिहरिसु दोणु । णालोइउ कइ ईसाणु वाणु ॥
णउ धाउ ण लिंगु ण गुणसमासु । णउ कम्मु करणु किरियाविससु ॥
णउ संधि ण कारउ पयसमति । णउ जाणिय माइ इक्किविहति ॥
णउ बुज्जिउ आयमु सहधामु । सिद्धतु धवलु जयधवल णामु ॥
पडु रुद्धु जडणिणासयारु । पडियच्छिउ णालंकारु सारु ॥
पिंगलपत्थारु समुदि पडिउ । ग कयाइ महाकइ चिति चडिउ ॥
जसइधु सिधुकलोल सिचु । ण कलाकोसालि हियवउ णिहितु ॥

हेतु वप्प णिखरकर कुक्षिलमुक्षु । णरवेसे हिंडमि चम्मरक्षु ॥
 अदुग्गमु होइ महापुराणु । कुडएण मवइ को जलणिहाणु ॥
 अमरामुरगुरुणमणझेरहि । जं आसि कियउ मुणिगणहरेहि ॥

Many names in this passage are familiar to us, such as Kapila, Bharata, Patañjali, Bhāsa, Vyāsa, Kālidāsa, Bāṇa, Harṣa, Rudraṭa, Piṅgala. But others like Akalamka, Kaṇayara, Purandara, Dantilla, Viśāhila, Kohila, Svayambhu, Drona, Īśāna are obscure. The writer of the marginal notes—and they are sometimes very helpful as I find—has tried to give some information regarding them. According to him Akalamka is Nyāyakāra (?)—kartā, Kaṇayara is Vaiśeṣikadarśanamulakartā, Purandara is Cārvākamate-granthakartā, Dantilla and Viśāhila with Bharata are writers of works on Music; the last four are poets about whom the writer of the marginal notes does not enlighten us.

This work also possesses considerable poetic merit. The author has command over metre and language, and uses similes that would do credit to a Kālidāsa; e. g.

जहिं कोइलु हिंडइ कसणपिंडु वणलच्छिंहिं कजलकरंडु
 उपयरइ सरोवरि हंसपंति चलाधबल णाइं सपुरिसाविति ।
 जहिं उच्छ्रवणइं रसगभिराइं णावइ कन्बइं सुकइहितणाइं ॥ 8a.

Before closing the brief account of this work, attention has to be drawn to the fact that the MSS. always has the cerebral *n* in place of the dental *n* in all positions. This appears to be the characteristic of the Apbh., which is ignored, e.g. in works like *Bhavisayatākahā* and *Sañjamamanjari*. In these latter works the *n* is made to follow its own fate in the Ardhamāgadhī. This has to be explained as due to the predilections of the scribes towards the language of their sacred lore.

(d) Lastly there are smaller works in *Apabhramsa* called Sandhi, e.g., *Ārādhana* 18 fol. and *Paramātma prakāśa* in 19 fol., *Cauraṅgasandhi*, *Bhāvanāsandhi*, *Rāsas* and *Statras* at the Pātanā Bhandar. These were first mentioned by the late Mr. C. D. Dalal in the essay that he read at the Gujarat Sāhitya Parishad, pp. 11 to 21. He has given a few quotations from some of them, and noticed others very briefly. They approximately number 15 Sandhis and 22 Rāsas.

5 Now what is the importance of the Apabhramsa literature so far brought to light? It is indeed very great and chiefly philologically.

(a) In the first place it shows us the parent of some of the modern vernaculars, especially the Gujarāti and Rājasthānī. The printed works and MSS. of Apabhramsa so far known to us almost exclusively hail from that part of India where the two languages are spoken to-day.

The nom. sing. neuter in *u*-or—*ū*, as in *miramānu*, *manu*, the nom. pl. of *a* bases in—*ā* or *a* as in *thodā*, *ghaṇā*, *Mora*; pronominal forms like *amhe*, *tumhe*, the diminutive or endearing suffix—*dā* as in *shiyadā*, *kammaḍā*; the *ya* of the past participle as in *kiyāu*, *gayāu*, the possessive suffix—*tāṇa* as in *tāhamtāṇiya*, *pahititāṇāie*, the stray infinitive in *vum* as in *jivivum*, the causal *in*—*da* as in *bhamādiu* all these and several other forms remind us one partly of old Gujarāti and partly of Old Western Rājasthānī.

(b) In the second place, it makes clear that the words in the modern vernaculars not traceable to Sanskrit—and there are a host of such—are living *dasi* or words in the language of the people, rich in meaning and expression, which the cultured people had either lost or not acquired. Such are:—

Dhadahadanta (Mar. *dhaddhadṇem*), *gulagulanta* *Chillara*, *simisimanta* Mar. (*sivasivṇem*), *rimijhimiri* (Mar. *rumjhūm*), *Jhagadantu* (Mar. and Guj. *jhagadā*), *pāngurāṇa* (Mar. *pāṅgharūṇi*), *chadaya* (Mar. *sadā*), *ṭālijai* (Mar. *ṭālanem*) *dhukkau*, *ghulāi* (Mar. *ghoḷanem*), *hiṇḍai* (Mar. *hiṇdanem*), *pilliyāīm*, (Guj. *pelyum*, Hindi *pelanā*), *halliyāēm* (Hindi *hilana*, Mar. *halanem*), *khudai* (Mar. *khudnem*), *navallāū* (Mar. *naval*), *haṭṭa* (Mar. *hāṭ*) *ḍhakkā* and *huḍukka* (Mar. *ḍhakkā*) *tharaharāē* (Mar. *thartharto*) and a host-of others *bhasalu* *pāhaḍu* *pābṛtam*! *cāṭṭr* Mar. *cedā*.

(c) In the third place, it throws an immense flood of light on the grammar of the Apabhraṁśa. Hemacandra is our principal authority in this matter although there are other writers like Caṇḍa, Mārkaṇḍeya, Kramadiśvara. For instance *Tisaṭṭhimahāḍpurisaguṇāian-kāra* and the *Sañjamamanjari* contain forms not countenanced by Hemacandra and therefore also not to be found in Pischel. A few of them only are given here as illustrations :—

(1) The Nominative singular of Masculine bases in *a* often ends in *-o*, although *-u* is more frequent e. g. *Sampanno khoho* (fol. 28a), *pasāhio Mahāideu* and *capalattavajjio hayāvalēu* (fol. 31 b) *suramahiharo* (fol. 34b).

2 The Instrumental singular of neuter (and even of masculine) bases in *-a* ends in *-ihī* as frequently as in *ehī* or *ahi* mentioned by Hemacandra and Pischel ; e.g., *cayaṇīhī* (fol. 23a) *nīsasihī* (*Sañjama*. vs. 27), *puṇṇīhī* (*Sañjama*, fol. 23a) *kammīhī* (*Sañjama* fol. 101a). This evidently is only a weakening of the *e* in *ehī*. The same happens to the *ehī* of the Locative e.g., *naraīhī* (*Sañjama* vs. 6).

(3) The Locative singular of *-a* bases frequently shows the ending *mmi* which Hemacandra and Pischel do not teach ; e. g. *māsammi caitti* (fol. 276).

(4) The Gen. postposition *kera* often takes the place of *tana*, e. g. *siddhihikerāu* (fol. 356).

(5) The Nom. sing. of the pron. *tvam*, has also got the form *pai*, which (although nasalized) is prescribed for the Acc. sing. and Instr. sing. by Hemacandra and Pischel.

(6) The 3rd sing. Fut. of *bhū* has also *hohi*, in addition to the *hosai* of Hemacandra and Pischel ; e. g., (fol. 27a).

(7) The causal has a suffix-*ala*, in addition to *ada* mentioned by Hemacandra and Pischel ; e. g. *dikkhālami* (fol. 24a & 28a), side by side with *bhamādai* etc.

(8) The absolute shows forms like *daṭṭhūṇam* (fol. 28a), although rarely, along with the usual Apbh. forms like *pāvedi*, *paviseppinu* (fol. 29a), which are very common.

(9) The abstract termination-*-ttanam* and-*-ppanam* also appears as-*-ppunam*, although rarely. There are cases of-*tta* also ; e. g. *capalatta* (fol. 31b).

5. Three syllables have been rubbed out here, owing to two pages having stuck together and then torn asunder by some one. The first appears to be the last.

It is not unlikely that it was, as the marginal note suggest, Bhāravi, the celebrated Sanskrit poet.

6. This is perhaps the scribe's mistake for.

THE DIALECTS OF BURMESE.

By. L. F. TAYLOR.

1. Sir George Grierson has placed it upon record that "most of the dialects belonging to the Burma group are all but unknown, and only the classical language of the Burmese literature, as it is spoken by educated Burmans, has been made available to philologists." This paper, therefore, which is based on the comparison of nine different dialects of Burmese, opens up a new subject.

Last year gramophone records were prepared by the Burma Government, at the request of Sir George Grierson, in twenty-nine of the languages and dialects found in the Province. These included eight of the dialects considered herein. In order that the pieces recorded might be properly understood, and in the absence of anything but the scantiest information concerning the dialects of Burmese, the Local Government sent me out on tour to investigate these different forms of speech *in situ*. The result is that we now possess (at present in manuscript) outline grammars and lengthy vocabularies of many languages which had hitherto remained uninvestigated. It is upon some of these materials that the present study is based.

Should results of any value appear in this and in subsequent papers, our thanks will be due to the Hon'ble Mr. C. Morgan Webb, Chief Secretary to the Government of Burma, who has not only suggested and made possible these investigations, but who has also advocated strongly the institution of a Linguistic Survey for Burma to supplement the Survey conducted

by Sir George Grierson for India. For my part I owe much also to Mr. Mark Hunter, Director of Public Instruction, who has not only permitted me to work outside his department but has also assisted me by his advice and encouragement. For any defects in the treatment of the materials, I alone must accept responsibility.

2. A word is here necessary on the meaning of the word dialect. If we travel to any civilized part of Upper or Lower Burma, between say Rangoon and Shwebo, we shall find that the medium of communication is a language called Burmese. Knowing this language we can enter into conversation readily in any place. Nevertheless we shall discover slight variations in pronunciation and idiom here and there. These, however, are too insignificant to arrest our attention. We shall, therefore, be justified in regarding this language as uniform and the local variations as of insufficient importance to be termed dialects.

If on the other hand we travel to Tavoy or to Arakan, or if we should happen to stay for a while in the villages near the Uppermost Defile of the Irrawaddy, we shall find ourselves considerably puzzled to know what is being said to us. In a week, however, or a month or in three months as the case may be, we shall discover that we can get along quite well. The sounds which were formerly so strange will now appear to be Burmese words strangely pronounced, and the grammar will appear to be the same as the grammar we have been used to. In a word we shall recognise, and learn sufficiently well to understand it, a dialect of Burmese.

It is with dialects of Burmese, in this sense of the term, that we shall deal in this paper. Of such dialects there are perhaps eleven or twelve, but I have been able to investigate nine only, including Burmese itself.

It may be mentioned in passing that materials have been collected also from the languages of the more uncivilized peoples. Five or six of these languages which bear no superficial resemblance to Burmese, are found on close study to be so similar to it in grammar, idiom and even in vocabulary when we have determined the phonetic laws that hold, that we must set them down too as dialectical variations. I have not sufficient time, however, to embody them in the present investigation and must set them aside for future occasion.

3. The dialects with which we are concerned are the following :—Burmese ; Arakanese; Tavoyan ; Intha ; Danu ; Yaw ; Samong Hpon ; Megyaw Hpon, and Taungyo. A few preliminary remarks may be made about each of them.

BURMESE. This is the lingua franca of the country. I have already referred to its uniformity above. The literary language differs somewhat from the colloquial in being more conservative and more uniform. It is the colloquial form, however, that I have chosen for my present purposes. The pronunciation of Burmese has changed considerably during the last thousand years if we are to judge by the spelling of the oldest stone inscriptions. There can be no doubt that Burmese, when it was first written, was written phonetically ; and by a study of the old inscriptions we can measure with some accuracy, the changes that have taken place. It has, therefore, been urged more than once that any comparison of the vocabularies of the dialects of Burmese ought to be made with the old Burmese of the inscriptions and not with modern colloquial Burmese. This is, in the main, a right contention. It is equally true however that only by

a study of the sounds in the dialects can we be really sure what the pronunciation of the oldest written Burmese really was. Seeing, therefore, that my present limits confine me to the comparison of dialects and exclude any investigation of old Burmese, I have chosen the Burmese colloquial speech simply as one of the nine dialects to be compared. The investigation of the sounds of Old Burmese is, therefore, left to a later occasion. The old spellings (which often differ considerably from the modern spellings) are being collected for me, and no work of any value can be done until this task shall have been completed.

ARAKANESE. This is the speech of the civilized peoples of Arakan. The pronunciation differs a good deal from Burmese. In many ways it is more archaic, sound and spelling being in agreement. Tentatively we may consider the sounds of Arakanese as resembling those of Burmese when the language was first reduced to writing, about a thousand years ago. Arakanese and Burmese must have parted from one another somewhere between one and two thousand years ago.

TAVOYAN. Tavoy is supposed to have been peopled by colonists from Arakan, and the language is said to be Arakanese which has undergone change and which has been influenced by Siamese. It does undoubtedly resemble Arakanese in many respects and popular opinion may be correct. I doubt, however, whether Siamese has exercised as much influence as has been supposed.

INTHA. In Yawnghwe in the Southern Shan States a strange people is to be found who live on the Inle Lake and in the neighbouring villages. They are said to have migrated thither from Tavoy some six

hundred years ago. The language is in many respects archaic and does resemble Tavoyan. The Inthas are undoubtedly much mixed in race, but they have preserved their language in a fair degree of purity.

DANU. The Danus live near to the Inthas. What they are racially cannot be determined. Probably they are a mixture. Their language, however, is most distinctly a form of old Burmese with peculiar modifications of the vowel sounds which may be due to Shan or Taungthu influence.

YAW. The Yaws live in the Pakokku District. What they were originally has not been determined. I suspect, however, that they are civilized plains Chins who have adopted Burmese speech within the last four or five hundred years. Of all the dialects of Burmese, this most resembles Burmese.

HPON. The Hpons are a small community who live on the defile of the Irrawaddy between Bhamo and Myitkyina. They are referred to in Chinese History as having been settled in South-West Yunnan sometime before the eighth century A. D., and they came into Burma about six hundred years ago. They claim that they lived in Burma before they went into Yunnan, and the probability of this is borne out by their language which, although it is on the very verge of extinction, is still well remembered by a few old men. It is unmistakeably a dialect of Burmese (it has now become divided into two sub-dialects, the Samong and Megyaw) though very archaic in form, much more so in fact than Arakanese. Many words which occur as monosyllables in other dialects of Burmese are still to be found as disyllables in Hpon, and evidence points to this as being the older form. Hpon alone provides many of the intermediate forms

of words, which are essential for the successful linking up of Burmese with other Tibeto-Burman forms of speech. Without a knowledge of Hpon, the study of the history of the Burmese language is impossible.

TAUNGYO. This is another primitive form of Burmese. It is spoken in the West of the Southern Shan States. It preserves many very archaic features, such as the original "l" sound which is often represented in Arakanese by "r" and in Burmese by "y". On the other hand it has suffered much phonetic decay, so that a Burman will not recognise it as a form of Burmese at all. Nevertheless it has preserved a wonderful degree of purity and freedom from admixture and is a dialect of Burmese beyond all possibility of doubt. I suppose it to have branched off from the parent stem some two thousand years ago. It is an older dialect than Arakanese.

Syntax and Grammar.

4. On examination we find that the syntax and grammars of these dialects are almost identical with one another and with Burmese. In describing briefly then the structure of Burmese I shall be describing that also of the other eight dialects which we are investigating.

Burmese belongs to the Tibeto-Burman sub-family of the Tibeto-Chinese family of languages. It is an isolating language and is usually described as being "tonal and monosyllabic." This description is superficially correct. Burmese does possess three distinct tones for many of its syllables in addition to certain syllables ending with the killed consonants k, t, s or p which are not variable in tone and which in themselves are supposed by some authorities to constitute a fourth tone. This tone, if it be admitted

as such, would be confined to syllables of this class alone, and syllables of this class could not take on any of the other three tones. So far as "monosyllabism" is concerned, it is safe to say that many of the monosyllables of the present day are but poorly disguised disyllables, and there is now evidence that many of the undoubtedly monosyllabic words are but the result of phonetic decay acting on and disguising old words of two or more syllables.

The following are some of the characteristic features of the grammar and structure :—

- I. The unit of speech is a root which does not correspond to any of our parts of speech. According to its place in the sentence, or by addition of some formative particle (itself originally a root), it may fulfil the functions of noun, adjective, verb or adverb. The term root is here applied to such a unit of speech, though the unit may itself be of secondary origin, a compound or fusion of roots of an older language period. They are primary roots, so far as the Dialects of Burmese are concerned, though they may be but secondary products in a wider sense.
- II. The general order of the parts of the sentence is subject, object, verb.
- III. Gender accords with sex. The sexes are represented either by distinct words or by particles indicating sex postfixed to nouns (or pronouns) of common gender.
- IV. The plural is indicated either by collective adjectives or by a postfixed particle implying multiplicity.

- V. The nouns and pronouns are indeclinable.
"Case relations" are indicated by various postfixed which have the functions of English Prepositions.
- VI. The adjective may generally precede or follow the noun it qualifies. In the former case a connective particle is, in some dialects, inserted between the adjective and the noun. Some adjectives are in some dialects confined by use to one or the other position only. The genitive precedes the governing noun.
- VII. The adverb precedes the verb.
- VIII. The verb is an impersonal root. The persons are indicated by the pronouns or subject. The tenses are indicated by postfixed particles. The transitive form of a verb is distinguished from the intransitive form either by the aspiration of the initial consonant or by the use of the auxiliary verb "to cause." The passive form may be distinguished from the active either by putting the subject into the objective case or by the use of the auxiliary verb "to suffer." Thus "me call" or "I suffer a calling" would be the passive forms of "I call."
- IX. In common with almost all the languages of South East Asia we find the employment of numeral affixes in the enumeration of nouns. In such cases the noun generally comes first, the numeral next, and then follows a word descriptive of some quality of the noun. Thus for "two men",

"two needles", "two eggs" or "two houses" we must say "men two beings" "needles two long things," "eggs two spherical things" or "houses two structures." The same numeral affixes are to be found in all the dialects of Burmese, though Hpon employs some affixes which have probably been borrowed from the Shans.

5. Another feature that our comparison brings to light is the common possession of many idioms and compounds. It is common in Burmese to find two monosyllables united to form a compound word. Such monosyllables may usually, but not always, exist alone. We find however many of the same compounds occurring in every dialect. It is evident therefore that these are of great antiquity, having been formed before the dialects separated from the parent language. Similar idioms are also found throughout, thus to listen or obey is invariably rendered by "to erect the ear." These also must be of great age.

6. The individual words too are nearly always the same. That is they are the same etymologically though phonetically they differ. The following illustrations will make my meaning plain. The English word in each case will be followed by the Burmese, Arakanese, Tavoyan, Intha, Danu, Yaw, Samong, Hpon, Mgyaw Hpon and Taungyo words.

To drop:—tfa tfa, kla, tfa, tfa, tfa, tfa, kla.

Horse:—mjin, mrey, bjin, hmjaj, meay, mjaj, ms, mjo, mle.

Become :—pjit, praik, pjit, pjeat, pjeat, pjit, pjit, pjit, plaik.

Stone :—dfauk, dfauk, kld, dzok, dzok, djauk, ka-lauk, ka-lok, klœ.

The proportion of words in the vocabularies of the various dialects which correspond to the words in Burmese varies between 70 and 98 per cent.

7. Having shown that the dialects are similar in structure and idiom and vocabulary, it follows that the essential part of our enquiry will be a study of the phonetic changes that words undergo as they pass from dialect to dialect. We must classify the words according to their sounds and meanings and study the phonetic changes that take place. We may reasonably expect that law and order will prevail and that we shall discover certain laws which regulate these changes.

8. This I have attempted to do, and the materials which I have employed are vocabularies of some eight hundred words in each of the nine dialects. For the sake of facilitating the work I have dropped out of comparison all compound words (for in these secondary changes take place) and words of Pali origin and have been left with a list of approximately five hundred monosyllables, the greater part of which are to be found in every dialect. The changes which these syllables have undergone have been tabulated and are given below in Table II. I have also analysed the sounds of these five hundred monosyllables into their ultimate elements and these have been arranged and tabulated in Table I. Table I therefore gives a list of the phonetic elements to be found in each dialect and the combinations in which they occur. Table II gives a list of the combinations of these elementary sounds into syllables and shows how the latter change from dialect to dialect. It must never be forgotten, however, that these tables do not profess to be the result of an exhaustive study of all the sounds to be found in these

dialects. They are the result of the analysis and comparison of vocabularies of five hundred words. More than this they do not pretend to be. They have been grouped in accordance with their spelling in Burmese. This has been done because trial has shown that such is the logical and proper arrangement.

9. We may divide words into four groups, according to their sounds. In the first group are included those words which occur as simple vowel sounds. The second group includes words which commence as a vowel and which terminate in a nasal or in a "killed consonant." The third group includes words which commence with a consonant and which end in a vowel, whilst in the fourth group are included the words of triple formation. They commence with a consonant (or combination of consonants) which is followed by a vowel (or diphthong) and they terminate in a nasal or with a killed consonant. The words in the first three groups may, for the sake of convenience, be regarded as special forms and we may represent the typical word by the definition which has been applied to the words in group four.

Since however the killed consonants are not really pronounced but only modify the preceding vowel, and since the only real finals are n and ng, it follows that it will be sufficient in Table II to trace the changes that our syllable undergo first when arranged according to their initial sounds and secondly when arranged according to their middle or vowel sounds.

10. So far I have dealt with facts. In this concluding paragraph I wish to deal with something which has not yet been established, but which is indicated by the materials that have been collected. I do not claim originality for the hypothesis that I am about

to express, I content myself with asserting that the new materials tend to strengthen it and encourage us to believe that some day it will be either confirmed or refuted.

If we investigate words in the Indonesian languages we find that they have a definite structure. In the first place there is a definite root, consisting generally of three sounds: a consonant, vowel and final consonant. From these roots are formed word-bases. The bare root may become a word-base, or the reduplicated root may do so, or roots may be combined and form a word-base, or finally the word-base may be formed from the root by formative particles which may be prefixes, infixes or postfixes. Finally, by the extension of the word-base by reduplication or formative particles are formed the bulk of the words of the Indonesian dialects. All this can be demonstrated with certainty because the Indonesian words are polysyllabic and phonetic decay, though sometimes great, has not disguised the traces.

I believe that something of the same sort has occurred in the monosyllabic languages of the Tibeto-Burman group if not in all the mono-syllabic languages of South East Asia. I must however confine myself here to Burmese and its dialects.

I believe that in the history of Burmese, as in Indonesian, roots were converted into word-bases, and that word-bases were extended until a large vocabulary had been built up. Such words must have been polysyllables originally and must have betrayed the nature of their origin. At a later date phonetic decay set in on an almost unprecedented scale and these polysyllables became shortened and simplified into monosyllables. But this is the source of all our difficulties. Poly-syllabic Burmese (or rather proto-Burmese) could have

been analysed and studied. Monosyllabic Burmese however defies analysis. Nevertheless certain indications may be pointed out.

I. If we look through a Burmese Dictionary we are arrested by many words which have similar meanings and similarity in sound. For instance (i) a wa, an orifice ; win, a fence round an enclosure ; wut, to dress or wear ; wun, to be round or circular ; wun, the belly ; we, to overflow or distribute ; we, to run round an object ; we, a whirlpool ; we, to fly round an object ; waik, to curve round ; waiylh, to encircle ; etc. etc. (ii) la, to come ; la, to advance ; lun, to exceed or trespass ; ahlun, exceedingly ; lan, a road ; law, to err or wander ; hlwe, to divert. etc. or (iii) kin, to cook; dfet, to cook; dfat, a word connected with cooking places, soot, etc ; dgo to boil to a pulp ; dfwan, to be burnt up; dfauy, to feed, tend; dfwe, to give a meal ; tfet, to cook, tfit to be burnt, as food in cooking;-and so on. I could give dozens of such groups of words, but those given already are typical of the rest. In some instances I have discovered twenty-six different words which are similar in sound and meaning.

I think we may safely conclude that there is a common root submerged in every one of the words of each group. This root has in each case been extended and modified in meaning by various formative elements which have been attached to and become fused with it.

II. That it was possible for formatives to have modified words is indicated not only by what has been said immediately above, but also by the fact that a similar thing can be seen to-day. The transitive verb is formed from the intransitive by the aspiration of the initial consonant. Thus from no, to wake, we form hno, to awaken; from nit, to be drowned, we form

hnit, to drown something else; from le, to fall we form hle to fell; from dfa, to fall we form tfa, to drop etc. etc. This illustration does not, of course, afford us any proof, but it encourages us to hope that a minute comparison of Burmese words may enable us in time to effect at least a partial analysis.

III. Some few words which occur as monosyllables in Burmese, occur as disyllables in Hpon. We will consider two instances.

The word for tiger in Burmese is dfa, in Hpon it is kă-la. The word for stone in Burmese is dfauk, in Hpon it is kă-lauk. The "kă" is a common prefix in Hpon, and many words cannot exist without it. Now the "l" in Hpon corresponds very frequently to "y" in Burmese. Thus I suppose kă-la and kă-lauk to have become kă-ya, and kă-yauk. These forms would telescope at once into dfa and dfauk. That "l" was the original sound contained in these words is proved conclusively by a comparison of the same words in other languages of the Tibeto-Burman family and even in the dialects of Burmese itself. Thus for tiger we get "kla" in Tavoyan and "klaw" in Taungyo. For stone we find "klaw" in Tavoyan and "Klœ" in Taungyo. We have, therefore, in the Burmese words cha and chauk, succeeded in proving the fusion of a prefix with a root.

All this, however, requires further investigation, and the materials that have been collected should prove of value. I hope to deal with the subject more fully at a later occasion. The illustrations given above are not all that I have been able to collect, they are just sufficient to indicate the nature of the evidence upon which our hypothesis is based. Not until we know more of the word structure, not only of the Burmese,

but also of the Shan, Karen and Mon-Khmer languages shall we be able to understand their relationships with one another. Much less shall we be able to make any fruitful comparison of this order of languages with Indonesian or with the great order of agglutinating languages which extends across Eur-Asia from Hungary to Japan.

Phonetic Symbols employed.

The symbols employed are those of the "International Phonetic Association."

p', k', t', & s' are the aspirated forms of p, k, t, & s.

θ is pronounced as th in "thin".

f " " " th " " "that".

z " " " z " " "zoo".

s " " " s " " "ship".

z " " " g in French "rouge". The English word "jar" would be written dza.

R. & Y. The former resembles the noise made when gargling at the back of the mouth,

The latter an attempt to hiss from the throat.

n is pronounced as ng in "singer".

The other consonants have their common values.

y is pronounced as u in the French "pur".

e " " " French è.

œ " " " eu in French "peur".

æ " " " a in "man".

a " " " a in French "patte".

'a' " " " a in "tar".

ə " " " ɛ in "thè 'man". A short indefinite vowel.

ʌ " " " u in "but".

ɔ " " " aw in "claw".

o is pronounced as o in "go".

õ " " " " o " " hot".

The other vowels as in Italian.

d̄s is written to indicate a sound intermediate between ts and dz.

°as in i°, e°, etc. indicates an abrupt termination, a sudden check to the vowel.

k, t, as in a^k, it, etc. indicates a consonant hinted at rather than pronounced. It has the effect of checking the vowel.

as in i, ã, etc. indicates a nasalization of the vowel.

CLASSICAL LITERATURE.

THE RELATION OF ŚŪDRAKA'S
MR̥CCHAKATIKA TO THE CĀRUDATTA
OF BHĀSA.

By S. K. BELVALKAR.

1. Bhāsa, the famous dramatist, the theme of unstinted eulogy for Kālidāsa (*Mālavikāgnimitra*, i. 5), Bāṇa (*Harṣacarita*, Introd. st. 15), Vākpatirāja (*Gañḍavaho*, st. 800), Jayadeva (*Prasanna-R.* i. 22) and others, has had a most strange reception at the hands of modern Sanskritists. When he was a mere name, the loss of even the most distant trace of his works or their names was universally deplored as a great disaster to Sanskrit literature ; but when by a happy accident a number of his works were discovered and brought to light by Mahāmahopādhyāya T. Gaṇapatiśāstri, many of us, refusing to believe in the great good news, essayed to prove that the author of the newly discovered 13 plays was not the great Bhāsa but perhaps a name-sake of his who has been variously assigned to the 6th, 8th, or the 10th century after Christ :—and this in face of the steadily growing mass of evidence which Mr. Gaṇapatiśāstri and others placed before the world in learned Prefaces and magazine articles. We do not wish to discuss in this place the question as to the genuineness of these plays or the date of their author, but limit ourselves to a more or less detailed comparision, especially from the point of view of dramaturgy, of the *Cārudatta* of Bhāsa and the *Mr̥cchakatika* of Śūdraka—the two plays which have been on all hands admitted to bear to one another a relation the most unique of its kind in Sanskrit literature.

2. While Śudraka's *Mṛcchakaṭika* is a complete play in ten Acts the *Cārudatta* of Bhāsa, as is well known, ends with Act 4. Is the four Act play complete in itself; and if not, did Bhāsa write any more Acts?—this is our first question. Now in spite of the colophon *avasitam Cārudattam* which one of the two MSS. gives, it can be proved from internal evidence that the author of the extant four Acts of the *Cārudatta* intended to write more. Thus in Act i stanza 6, in the course of his lamentation on account of poverty, the hero is made to say—

Pāpam karma ca yat parairapi kṛtam tat tasya sambhāvye.

“And a crime by others committed is from him suspected to emanate.”

These words can have a significance only if the hero comes to be accused for a crime such as the murder of the heroine which is committed by others (Śakāra). This event does not take place in the course of the extant four Acts. Again in the same Act Śakāra, after discovering that Vasantasenā the heroine has given him the slip, utters the threat—*Ahake dāva vañcite kūḍakāvadasilaye sauvahā dukkhađe kađe!*—“So you have dared to deceive me, the master of those that deceive! A bitter end is in store for you.” And later in his message to Cārudatta, he conveys a similar threat in the words—*Vaśañcaśenā nāma gaṇīddariā ammehi baļlakareṇa nāmānd mahantena suvaññālaṁkareṇa tava gehāṁ paviṣṭāḥ Śā suve niyyādaiḍavvā. Mā dāva tava a mama a dāluṇo khoho hodi tti, etc.*—“The courtizan’s daughter by name Vasantasenā, about to be led away by us in force, has, with great golden ornaments, entered your house.

Send her back to-morrow for fear lest there might ensue a great quarrel between you and me." The expectancy here raised has not been fulfilled in the existing four Acts. Śakāra somehow wished to make the revenge turn upon the great golden ornaments : but just how is not clear.

3. A similar unfulfilled expectancy confronts us in the next Act. For instance, the Samvāhaka (shampooer), who takes to gambling, and is rescued by Vasantasenā from the clutches of his creditors, longs to return the obligation but finds no opportunity, just as in Act four Sajjalaka (=Śarvilaka) leaves the stage with the pious but unfulfilled wish—*Bho! Kadā khalasyāḥ pratikartvyaṁ bhaviṣyati*—“Oh ! When can it be possible for me to requite her ?” Dramatic Justice requires that an opportunity be given to these persons to do what they so ardently long for ; otherwise their very introduction into the play becomes absolutely void of meaning.

4. Lastly consider the case of Cārudatta himself, the hero of the play. Bhāsa introduces him to us as a poor man—but not without a hope of someday being able to regain his fortune : cp. 1.5—*Bhāgyakramena hi dhanāni punar bhavanti*.—“By another turn of fortune riches may come back again.” Here again dramatic justice requires that this hope be fulfilled : that the merits of the hero be adequately rewarded. Nothing of the kind takes place in the course of the four Acts of Bhāsa. On the other hand an additional monetary misfortune falls upon the hero in the shape of the theft of Vasantasenā's ornaments from his house. And although the ornaments are ultimately restored to the rightful owner, the point to note is that Cārudatta

never knows of this fact. Yet more strange perhaps is the circumstance that while presumably one of the main themes of the play is the love and the ultimate union of Cārudatta and Vasantasenā, this never actually takes place in the first four Acts. At the end of Act 4 the heroine does indeed start as an *abhisārikā* to meet Cārudatta in his house, taking along with her the stolen ornaments (*imam alamkāram gaṇhia*) and regardless of the clouds gathering overhead ; but the rest is all silence ! It is clear that no audience can ever be ready to tolerate such a tantalizing end to an otherwise perfectly interesting play.

5. The conclusion is therefore inevitable that the author of the *Cārudatta* did contemplate writing more than the existing four Acts. We may therefore rest in the pious expectation that the remaining Acts of the *Cārudatta* will one day be discovered, and for the present account for the separate existence of the first four Acts (and incidently of the colophon *avasitam Cārudattam*) by assuming that it was perhaps customary to divide a longer play, for purposes of stage representation, into two or more smaller parts not quite on the analogy of the Trilogies and Tetralogies of the Greek and Elizabethan Stage, but rather like what is sometimes done on our modern stage (and even occasionally by some of our Universities who are expected to know better) when they divide Kālidāsa's Šākuntala into two parts : 1-4 and 4-7, both inclusive. Or as an alternative hypothesis we may assume that death or some such thing came in the way of the proper conclusion of play. The last hypothesis rules out of court the view that the Cārudatta of Bhāsa is an abridgement of the Mṛcchakaṭika, and we will not therefore here take that hypothesis into account.

6. But limiting ourselves to a critical comparison of the extant portion of the *Cārudatta* with the corresponding portion of the *Mṛcchakaṭika*, can we come to any definite conclusions as to the priority of the one over the other? I believe that we can. Let us therefore consider the evidence both ways.

7. The view that the *Cārudatta* is an abridgement of the *Mṛcchakaṭika* is rendered *prima facie* probable by the circumstance that the former does not contain Vidūṣaka's tiresome description in Act 4 of the eight quadrangles in Vasantasenā's house, or the Robber's lengthy effusion (in eight verses) on the fickleness of women in the same Act ; nor again the low-life realism exhibited by Śūdraka in the rather lengthy intermezzo in Act 2 wherein we are introduced to Māthura, Samvāhaka, Dyūtakāra, and Darduraka—to say nothing of the considerable shortening in the chasing scene in Act 1 (19 stanzas and 74 prose lines in the *Mṛcchakaṭika* as against 14 stanzas and 52 prose lines in the *Cārudatta*), or in Cārudatta's lamentation on poverty (10 stanzas in the *Mṛcchakaṭika* as against just 5 in the *Cārudatta*) in the same Act, or in the Robber's preamble on the philosophy of theft in Act 3, besides a number of minor omissions too numerous to specify. As it is perfectly conceivable that a play like the *Mṛcchakaṭika* should have been shortened for stage purposes, there are a number of scholars who refuse to subscribe to Mr. Gaṇapati Sāstri's view that the "short play of *Cārudatta* has been amply enlarged by the addition of fine passages, which render the plot even more interesting, and has, under the name of *Mṛcchakaṭika*, become famous as the work of Śūdraka."

8. But it does not seem to have been sufficiently

realised that the *Cārudatta* of Bhāsa is in some places more extensive than the play of which it is presumed to be the abridgement. Thus consider the soliloquy of Vidūṣaka in the first Act immediately after the Prologue (25 lines in Bhāsa as against 16 in Śūdraka) and note in particular the words—*Eso vāā paccācakkhido hiṇeṇa aṇubandhiamāṇo gacchiadi*; and further—*Mama udaram avatthāvisesam jāṇādi. Appenāvi tussadi. Bahuam vi odanabharām bharissadi dīamānam, na āedi adīamānam, na paccācikkhadi* :—words which are of great significance for the character of Vidūṣaka, the avaricious and withal the loyal Brahman friend of the hero. Similarly in the chase scene Śūdraka does not give the bragging speech of Viṭa—*Vasantasene, sarvatra bhayānabhijñahṛdayam mām kuru. Paṣya*:

*Paricitatimirā me sīladoṣeṇa rātrir
Bahalatimirakālāstīrṇapūrvā vighaṭṭāḥ;
Yuvatijanasamakṣam kāmam etanna vācyam
Viḍaṇisu hataśeṣā rakṣiṇāḥ sākṣiṇo me.*

which again has a particular bearing upon the character of Viṭa as also upon the *morale* of the Ujjayini of the day. In fact the character of this Viṭa as Bhāsa paints him is most cowardly and contemptible and has none of the culture and other relieving features of Śūdraka's Viṭa. Thus for instance Bhāsa's Viṭa, at the sight of Cārudatta's Ceṭī, as she was issuing out of the house, himself conceives of the dastardly plan of maltreating her and of offering her to Śakāra as a substitute for the lost Vasantasenā : cp. his speech—*Bhavanānnirgatyā kācid iyam āgacchatī. Bhavatu anayā varākām vañcayāmi*. And when Śakāra says—*Jāṇāmi saṭayogeṇa na hoi Vasañcasenīā*, he even tries to

convince him that the lady is Vasantasenā herself—

Esā raṅga-praveśena kalānām caiva siksayā

Svarāntareṇa dakṣā hi vyāhartum ; tanna muñcyatām.

It is evident that such a total change in the conception of a character—a change again which is not a change for the better—is beyond the province of the mere abridgement-maker. A few more cases tending to disprove the view that Bhāsa's play is an abridgement will now be exhibited in parallel columns without any comment:—

BHĀSA

- P. 17, Act i. st. 20.
- P. 42, Aham pi tena
ayyeṇa abbhaṇuññādo :
anñām uvaciṭṭhadutti.
Kaham anñām erisam
maṇussaraṇām labheam
ti, kaham ca tassa komala-
lalidamahurasarīrappari-
sakidattham me hattham
sāhāraṇasarīrasama d e-
na soaṇīam karissam ti
jādaṇivvedo daddhasa-
rirarakkhaṇattham jūdo-
vajīvī samvuddo.
- P. 53, The short dialogue
between Vidūṣaka and
Cārudatta before sleep :
- P. 57, Act iii st. 12 and
the speech immediately
preceding.
- P. 64, Act iii st. 16 and
the speech of Vidūṣaka
which is the occasion
for it.
- P. 67, Act iii st. 18.

ŚŪDRAKA

- Absent.
- P. 112 (B.S.S.), Cālittāva-
śeṣe a taśśīm jūdovajīvi-
damhi samvutte.
- Absent.
- Absent.
- Absent.
- Absent.
- Absent.

P. 81, Gaṇikā (ātmagatam)
—Dhikkhu ganiābhā-
vam. Luddhatti mām
tuḷaadi. Jai na padic-
che so jjeva doso bha-
vissadi. (prakāśam)
Āñedu ayyo.

P. 214, Vasentasenā
(vihasya sakhimukham
paśyanti)—Mitteya kad-
ham na genhissam raañā-
valim? (iti gṛhitvā pārśve
sthāpayati.)

9. But it may be argued that the author of an abridgement may occasionally find it necessary to expand the original for the sake of better dramatic effect ; and although none of the passages we have hitherto adduced are capable of being thus explained away, yet, granting the truth of the proposition, it follows as a necessary corollary to it that the author of the abridgement will at least endeavour not to spoil the effect of the original by introducing inartistic, meaningless, and even absurd speeches of his own composition. But this is what Bhāsa must be supposed to have done if he is to be placed after Śūdraka. Thus in Act 4 whatever reason we might assign to Bhāsa's having ushered Vidūṣaka into the presence of Vasantasenā earlier than the Robber, nothing in my opinion can justify Vasantasenā's direct and unskilful accusation of the Robber in the words—*Aham jāñāmi tassa gehe sāhasam karia āñido aam alamkāro*. It is quite inconceivable that with that skilful management of this part of the dialogue by Śūdraka before one's eyes even a third-rate dramatist would commit such a glaring and unmotivated blunder. A somewhat similar comment has to be made in regard to the dialogue which ensues in Act i between the hero and the Gaṇikā whom he mistakes for Radanikā.

10. Then again if the Cārudatta of Bhāsa is an abridgement of Śūdraka's *Mṛcchakatika*, what could

have been Bhāsa's motive in studiously avoiding all reference to the political revolution at Ujjayinī which forms the background of Śūdraka's play? Śūdraka alludes to it in the Prologue (P. 13) and again in Act 4 (P. 189), and we know that in the dénouement it is through this political revolution that it has become possible for the poet to accord poetic justice to all the parties concerned. It is too much to expect that the author of the abridgement would omit this important bye-plot and yet preserve the main features of the play unchanged, which he must do as an epitomiser. On the other hand the addition of a bye-plot is what properly belongs to the province of an elaborator of an earlier shorter version of the play.

11. The argument based upon an aesthetic evaluation of certain stanzas in Bhāsa's *Cārudatta* with the corresponding stanzas in Śūdraka's *Mṛcchakaṭika*, where they are not absolutely identical, is rather of an illusive character and cannot yield decisive results. The work of the earlier writer is normally expected to be crude and less polished while that of the later writer should be more refined and poetic. But this is not an invariable rule ; and if the later writer happens to be an elaborator rather than an epitomiser, and if the elaboration has been carried from some specific motive, no chronological conclusions of any kind are possible even as regards passages which all critics—by a sort of a literary miracle—agree to regard as poetically superior or inferior as the case may be. Although therefore we have collected a number of passages from Bhāsa which, according to us, are poetically superior, and a number of others which are poetically inferior, to the corresponding passages from Śūdraka, we abstain from making use of them for our present purpose, as

the argument is likely to cut both ways. We give below a few illustrations of what we mean—

BHĀSA

ŚŪDRAKA

- | | |
|---|---|
| P. 8-pūrvabalirūḍhayavān- | P. 19-samprati virūḍhatrṇ-
kurāsu. |
| P. 10-atthavāvārā govadā-
raā via masaabhidā gihā-
do niggacchandi. | P. 22-atthakallavattā varadā-
bhītā via govāladārā jahim
jahim ṇa khajjanti tahiṁ
tahiṁ gacchanti. |
| P. 12-Vegādaham pracali-
taḥ pavanopameyah
Kiṁtvām grahitum athavā
na hi me'sti śaktih ? | P. 29-Vegādaham pravisṛtaḥ
pavanam nirundhyām,
Tvannigrahe tu varagātri
na me prayatnah. |
| P. 14-Made khu jo hoi ṇa
nāma jivai. | P. 35-Mumukkhu je hodi ṇa
še kkhu jivadi. |
| P. 24-Na tasya kaścid vib-
havair amanḍitah. | P. 54-Na tena kaścid vibha-
vair vimānitah. |
| P. 28 and elsewhere—Kā-
madevāṇuyāṇappahudi. | P. 65 and throughout--Kāma-
devāadaṇujāṇādo pahudi. |
| P. 29-vivahantā via saad-
iam duvvīṇḍabaliवaddā
aṇṇonṇam samkileśandi.
Aham dāni kam pasā-
demi. Bhodu, dāni Ra-
daniam pasādemi. Rada-
nie, pasīdedu pasīdedu
hodī. | P. 67-duvevi tumhe susam-
panṇā via kalamakedārā
aṇṇonṇam sīseṇa sisam sa-
māgadā. Aham pi iminā
karahajāṇusarisenā sīseṇa
duvevi tumhe paṇamia
pasādemi, ut̄thedhatti. |

These are all passages taken from the first Act ; the other Acts yield even larger material for comparison. In some of these passages the palm of superiority undoubtedly belongs to Bhāsa ; in others to Śūdraka. But it is impossible to say what passage was written first and what was its second and improved edition. In short the aesthetic argument is an argument which cannot be used on either side of the question with any compelling force.

12. The considerations hitherto urged would probably enable us to arrive at the negative conclusion that there exist no valid reasons for regarding the *Cārudatta* of Bhāsa as a later abridgement of Śūdraka's *Mṛcchakaṭika*. Let us now look at the shield from the other side and determine if any positive reasons exist for regarding the *Mṛcchakaṭika* as the later elaboration of the *Cārudatta*. Now if we look at passages such as those mentioned in Para. 7 above as later additions, the motive for their addition becomes at once evident. It is partly to show off one's knowledge and familiarity with such highly technical and out-of-the-way facts as the inner arrangement of a wealthy courtizan's house or the scientific accoutrements of a professional robber, which were detailed in regular manuals now unfortunately, or rather fortunately, no longer extant ; and partly to introduce broad humour and low-life realism. Indeed, that Śūdraka often makes a deliberate appeal to the gallery is capable of easy illustration. Consider for instance the speeches of Śakāra (P. 33) ending with—*Itthiñam satam mālemi : śule hagge !* or those ending with—*Ido Bhāve ido Ceđe : Bhāve Ceđe, Ceđe Bhāve : Tumhe dāva eante ciṣṭa.* (P. 47), or lastly those beginning with—*Ale kākapadamasṭasīśakā dusṭavaḍuakā, uvaviśa uvaviśa* (P. 56) in Act first ; then passing over the extremely humorous scene between the Shampooer, the Sabhīka, the Gambler, and that lovable rogue of a Dardurka, we may mention the little affair in Act iii between Vidūṣaka and Vardhamānaka about washing the feet, and in Act four Vidūṣaka's courteous (!) reference to Vasantasenā's old mother (P. 267f). Here the appeal is rather too broad, and no wonder if it at times transcends the bounds of what is proper or dignified. For instance, I have always thought that

it is extremely improper of Cārudatta to propose—*Vayasya Maitreya, tvam udakam grhāna; Vardhamānakah pādau praksālayatu.* The corresponding portion in Bhāsa is much more successful even as a humorous scene. So also in Act 4, after the description of the 8 quadrangles or courts of Vasantasenā's house, Śūdraka contradicts himself by bringing Vasantasenā into the Rukkhavādiā, whereas in the beginning of the Act she is seated in an apartment of her house having a gavākṣa. Such a violent shifting of scenes within an Act is an absolute heresy in a Sanskrit drama, and perhaps the only reason for the fact is Śūdraka's desire to thereby secure for Vidūṣaka in Act 5 an opportunity for the retort—

Vasantasenā—*Kā tumhāṇam Rukkhavādiā vuccati?*

Vidūṣaka—*Jahim ḡa khāīadi ḡa pīādi.*

13. It would I suppose be admitted by all that Śūdraka could not have himself been the author of at least that stanza in the Prologue which speaks of Śūdraka's own death in the words—*Labdhvā cāyuh satābdam dasadinasahitam Śūdrako 'gnim pravisṭah;* and there is further evidence to prove that the Dhūtā episode in Act 10 is added to the play by a hand later than that of Śūdraka. This being the case, it is conceivable that throughout the play a few stanzas here and there such as those on the fickleness of women, the miseries of poverty, and so on, got interpolated in later times. These stanzas are often extremely dull and superfluous. For example, stanza iii. 22 or iv. 23 and iv. 27. Even if we take away all such palpable addition from the present text of the *Mṛcchakaṭika*, and even if we agree to put up with the redundancies and the mythological solecisms à la mode de Śākāra (of which there

is little trace in Bhāsa), yet what remains of Śūdraka's play is, from the stage-manager's point of view an extremely awkward piece to deal with, whereas Bhāsa has such a fine and discriminating eye for the little details of time and place and situation and apparel (which can come only of an attentive study of the stage-conditions and a perfect imaginative identification with the several characters brought on the stage) that, whether the author of the newly discovered plays is to be regarded as the predecessor of Kālidāsa or not, it is evident that we must rank him as a dramatist of a very high order. A few illustrations will make our point clear—

Act i—Throughout the chase scene Cārudatta is seated in a part of his house not illuminated by any lamp ; hence although the Gaṇikā presumably recognises the hero by his voice how natural it is for her, when Vidūṣaka comes back with the lamp, to ejaculate—*Dīvāloasūidarūvo so evva dāni eso jaass kide aham nissāsamattalakhidam sarirām uvvahāmi!* Please note also how skilfully the return of Radanikā is timed.—Bhāsa gives us a clear idea throughout the chase scene of the topography of the city. The chase began upon a thoroughfare. Then Vasantasenā enters a lane which in Śakāra's words was *andhaalapūlisagambhla*, and it is in this lane that the hero's house is situated. As the house was *sambhoamaṇina* and as no rays of a lamp etc. streamed out of its windows and doors, that particular spot, as Vasantasenā correctly observes, was the darkest in the lane, and it was also a windy

night. We thus see that Bhāsa omits no circumstance that would lend probability to the events.

Act ii—After the heroic rescue of the Buddhist mendicant from the infuriated elephant, Karnapūra naturally expects to receive some presents and not a mere profusion of praise; as he says—*Na uṇa kocci kiṃpi icchai dādum*. It is at this that Cārudatta gives away his only *pravāraka* and returns home *janṇovavī-damattapāvārao*, as the heroine says. In Act three Vidūṣaka blames the hero for this his unconsidered charity. If it was through compassion, says he, a worthier object for it existed nearer at hand, viz., Vidūṣaka himself who in a cold night *bharidagaddabho via bhūmīe pallaṭṭhāmi*.

Act iii—The dialogue between Vidūṣaka and Cārudatta's wife after the theft is, in Bhāsa's *Cārudatta*, far more full of feeling and verve than the corresponding portion in the *Mṛcchakaṭika*. And Bhāsa wishes to preserve a system of time-indication for the play: the chase taking place on the ṣaṣṭhī, and theft on the saptamī, and the incidents of the last Act on the aṣṭamī,—which, because it involves an astronomical inconsistency (the Moon being made to rise at midnight on the ṣaṣṭhī in Act i and to set at about the same time on the aṣṭamī of the same fortnight in Act iii) is probably ignored deliberately by the author of the *Mṛcchakaṭika*. An improvement of this nature is more in the line of a later elaborator : it is

too much to believe that an epitomiser has allowed such a blunder to creep into the play when it was not originally there.

And generally it may be said that Bhāsa is more full and precise in his stage-directions than Śūdraka. Thus it is absurd to make Cārudatta sit down immediately after he has offered the *bali* in the beginning of Act i. He is in the courtyard outside and must re-enter the house. Then later, after the mêlée with Śakāra when Cārudatta discovers a stranger in the house and Vidūṣaka delivers the message of Śakāra, Bhāsa makes Vasantasenā say very properly—*Ayyasaraṇāgadamhi*; and Vidūṣaka's speech wherein he tells the hero that the stranger in the house is no other than Vasantasenā who has already, ever since the return from the Fare of Kāmadeva, conceived an affection for him, that speech is rightly made *aparārya* by Bhāsa. Śūdraka has no such refined ideas; he is often coarse to a fault. Compare the gross suggestion in Māthura's speech in Act ii—*Kiṣṭha tuhami taṇumajjhe ahareṇa radadaṭṭa duvvinīdeṇa*

Jam̄pasi maṇi aharavaṇaṁ loāanti kaḍakkheṇa ?

And in Act 1 also towards the end it is absurd to make Cārudatta accompany the heroine in person in her return journey to her house; and absurder still is Vidūṣaka's speech—*Tumām jevva edam kalahamisagāminīm anugacchanto rāhaṇīso via sohasi*. But with an author bent upon making every

possible appeal to the gallery nothing better can ever be expected.

14. It is perhaps unnecessary to labour the point any further. An attentive study of the two plays along lines somewhat similar to those we have hitherto followed would convince any unbiassed reader that the *Mṛcchakaṭika* of Śūdraka is a deliberate amplification of the earlier play of Bhāsa, undertaken from specific dramaturgic motives; and while therefore the elaborator has improved upon the original in a number of ways he has in the attempt sacrificed the unity, the delicate finish, and a portion of the beauty of the original, as was quite inevitable. The plays cannot possibly have been independent productions: the many identical and analogous passages in the two plays make such an hypothesis quite untenable. And whether the reason for Śūdraka's elaboration was the fact that the play had remained unfinished in the original, or it was simply a *kāvyārtha-cauryam* is, in the present state of our knowledge, more curious than profitable to inquire.

15. M. Sylvain Lévi alone amongst Oriental critics has been from the first consistent in assigning the *Mṛcchakaṭika* to the 6th century after Christ, while all other scholars had agreed to regard the play as earlier than any of Kālidāsa's, and probably dating from the beginning of the Christian era. The discovery of Bhāsa's *Cārudatta* has unexpectedly strengthened Lévi's position, but if there be something in the argument based upon internal evidence (such as the form of the Prakrit) to make us still regard the *Mṛcchakaṭika* as earlier than the plays of Kālidāsa, and if Bhāsa is to be regarded—as we hope we have made it probable—as a predecessor of Śūdraka, this will not be without an indirect bearing upon the question of the date of Bhāsa.

A PSYCHOLOGICAL STUDY OF KĀLIDĀSA'S " UPAMĀS ".

By P. K. GODE.

Every student of Sanskrit literature is quite familiar with the śloka, which begins with उपमा कालिदासस्य¹ and though the force of the quotation has gone home to many a reader of Kālidāsa, none has undertaken a critical survey of his Upamās, which are so charming and interesting not only to the students of Rhetoric proper, but also to the general lovers of literature. I propose to examine the above-mentioned remark on objective grounds. But in doing so my object is mainly psychological. I shall try to indicate, not only the poet's range of observation, his keen æsthetic sense, his penetrating intellect but the workings in detail of that unique faculty for noting comparisons, which is considered to be one of the "foundation-pillars of intellectual life."

I understand the word "Upamā" in the broadest sense of the term. Under it might be included not only all the figures based on similarity but also many more which escape the water-tight compartments created by Indian rhetoricians. For instance the application of maxims to particular situations in life necessarily postulates the process of comparison, and

¹ उपमा कालिदासस्य भारवेर्यगौरवम् ।

दण्डनः पदलालित्यं माधे सन्ति त्रयो गुणाः ॥

In the references given, Roman figures stand for Acts, the second figures denote pages, while the last figures shew the lines, except when preceded by the symbol v., which indicates the numbers of verses.

they will have to be included under “Upamās” from the psychological point of view.

I have restricted my effort to an examination of comparisons in the *Sākuntala*² only, firstly because it is the masterpiece of Kālidāsa and secondly, being a piece of dramatic art, it is a truer reflection of human life than what we find in his ‘Kāvyas.’

There are about 180 comparisons in the whole of the work under examination. Though Act I and VI are almost equal in extent, the former is quite barren in comparisons containing about 8, while the latter quite bristles with them, containing about 51. The reason for this deficiency is quite plain, for, Act I is almost an introduction to the whole of the work and the poet is more engaged in narration than in the “criticism of life” proper, which is the main work of a dramatist in a play. In Act VI the poet is able to maintain certain detachment of mind so indispensably necessary for the psychological analysis of character and its detailed representation. Acts II, III, IV and V contain 13, 17, 27 and 29 respectively. Here we find a gradual increase till it culminates in Act VI, which, as I have said above, contains 51. From Act VI onward there is no increase but a definite decrease, Act VII containing only 34. The winding up of the drama begins and ends in Act VII and hence the decrease. In fact there seem to be two elements playing a tug of war. In the earlier part of the play the narrative element preponderates, sometimes perceptibly and sometimes in disguise while the critical element is quite in the back ground. In Act IV in particular the poet seems to be unable to keep a

²The edition used is that by M. R. Kale, Bombay 1913.

completely objective attitude of mind, which alone is capable of producing comparisons. Here pathos reigns supreme and the mind sways with emotion. The qualities of style that we notice are more of emotional than of intellectual character and hence there is a relative decrease of comparisons. It is mainly an outcome of the poet's heart and not of his head.

As the main object of my essay is psychological, I propose to classify the comparisons according to their sources. The sources of similitudes are co-extensive with the world of the poet's knowledge of men and things.

I. *Heavens*—The Sun in his various aspects is largely employed for the purposes of comparison. His boiling heat in the summer season is referred to in III, 73, v. 10. His powerful light makes the moon fade (III, 79, v. 15). The simultaneous rising of the moon and the setting of the Sun illustrate the prosperity and adversity of the world (IV, 94, v. 2). The birth of an illustrious son is like the rising of the Sun, in the eastern quarter (IV, 114, v. 19.) The Sun is pointed to us as an example of dutifulness since he never fails in his duty of giving light to the people (V, 121, v. 4). He is the most effective agency in removing darkness (V, 129, v. 14). In spite of this, however, he is unable to dispel the nocturnal gloom (VI, 182, v. 30). Aruṇa or the morning twilight is said to be his harbinger (VII, 185, v. 4). It is the sun that makes the day-lotuses blossom (V, 141, v. 28).

The Moon's various aspects and peculiarities have been almost conventionalized in Sanskrit poetry as will be clear from the following references :—The light of the autumnal Moon is most inviting (III, 77,1). She fades into insignificance before the blazing light of the

sun (III, 79, v. 15). The rise of the Moon denotes the glowing prosperity of certain individuals in this world (IV, 94, v. 2). She alone is able to drive off the nightly darkness (IV, 182, v. 30). The eclipse of the Moon is referred to in VII, 202, v. 22. The dark spots on the Moon's surface are mentioned in I, 20, v. 18. A lotus fibre is as soft as the Moon's rays (VI, 170, v. 18). Sakuntalā's personal magnetism towards her two female friends is illustrated by the attraction which the Moon exerts on the Viśākhā constellation (III, 74, 11). The Moon's rays though cool in themselves produce a burning effect on love-smitten souls (III, 66, v. 3). The absence of the Moon by day deprives the night-lotuses of all their gladdening beauty (IV, 95, v. 3). It is the Moon that causes the blooming of the night-lotuses (V, 141, v. 28).

References to constellations are very rare in the play. The Viśākhā Constellation is attracted by the moon (III, 74, 11). Rohinī, the fourth lunar constellation, is united to her lover, the moon after an eclipse (VII, 202, v. 22). As regards the eclipses of heavenly bodies, only the eclipse of the moon has been referred to in VII, 202, v. 22. The surface of the heaven has been mentioned in VII, 186, 7. The intermediate space between heaven and earth as the region for birds to move in is mentioned in V, 138, v. 22.

II. Earth—The following phenomena of the sky have been made use of for the purposes of comparison :—

Lightning is probably referred to as a tremulously radiant flash having an unearthly origin (I, 31, v. 23). The morning twilight is able to dispel darkness only on account of its share in the sun's light (VII, 185, v. 4).

The unceasing blowing of the wind is a symbol of dutifulness (V, 121, v. 4). Mountains stand unshaken in a storm (VI, 160, 12-13). The wind dries up the succulent leaves of tender creepers (III, 72, v. 8). Evening clouds forming a bar on western horizon look like a mountain range as it were (VII, 190, 1). The tawny-coloured demons appear like so many evening clouds (III, 88, v. 25). Modest people are like clouds surcharged with rainwater, which are bent low to the earth's surface (V, 127, v. 12). Duṣyanta's assurance of help to his subjects was hailed like timely rain (VI, 176, 14). The Ocean's invariable and direct connection with a big river illustrates the natural and worthy longings of Śakuntalā's heart for the illustrious descendant of the Purus (III, 74, 7). As enveloping the earth, the ocean is said to be her garment (III, 81, v. 18).

A river with its torrent divided by a hillock happily illustrates the divided mind of the king (II, 62, v. 17). Big rivers are extremely attached to the ocean (III, 74, 7). A river torrent pulls down trees situated on the banks (V, 134, v. 21 and VI, 162, v. 10). The contrast of the mirage and a full-flowing river is made use of in (VI, 168, v. 16). Disappointment is compared to mirage (VII, 199, 15). Reeds growing in the river are bent down by the sweep of flowing waters (II, 45, 5). The idea of bathing in a lake is implied in VII, 192, 1 and that of a river overflowing its banks in V, 119, 1, where a song is said to be overflowing with emotion. The description of eyes full of tears indicative of excessive joy has also the same idea underlying it (IV, 103, 8). Water cannot flow from a lower to a higher level. This physical law illustrates the fixing of Duṣyanta's love on Śakuntalā (III, 65, footnote 1). Water is discarded by the Hānsa birds when the same,

mixed with milk is offered to them (VI, 181, v. 28). The killing effect of hot water on tender creepers is spoken of in IV, 94, 3.

The sublime strength of the mountains is described only in one comparison. They remain unshaken and immovable in spite of the abnormal fury of stormy winds (VI, 160, 12-13). The ups and downs of the earth's surface are implied in VI, 166, 7, where a picture in relief is described.

A well concealed by grass resembles a man putting on a cloak of virtue (V, 138,4). The surface of the earth is incapable of producing lightning (I, 31, v. 23). A dull intellect is compared to a lump of earth (VI, 160,5). The burden of the earth is borne by the Serpent God Śesa (V, 121,4). The earth is said to be the co-wife of the ruling king (III, 81, v. 18).

Comparisons from the mineral world are very few but many of them are quite original : A bright gem though it resembles fire in brilliancy is capable of being touched by human hands (I, 34, v. 25). A crystal lens (*Sūryakānta*) emits burning heat when acted upon by the sun's rays (II, 50, v. 7). Boring of gems is referred to in II, 54, v. 10. Gems attain exceptional brilliancy even though reduced in size by a polishing instrument (VI, 156, v. 6). A woman's beauty is compared to that of a gem (II, 53, v. 9, line 1).

III. (1)—the Plant Life— Comparisons from the Plant Life are quite numerous.

Garden creepers and forest creepers are contrasted in I, 18, v. 16. A thick eye-brow is compared to a creeper (III, 77, v. 13). A slender and supple woman imitates a creeper (VII, 158, 19). Creepers blossom in the vernal season (VII, 205, 8). A creeper in flowers is delighted to have bee as a welcome guest (VI, 171, 10).

Creepers shed tears at the time of Śakuntalā's departure from the penance-grove (IV, 107, v. 12). A coil of creepers has grown round the neck of a sage in meditation (III, 191, 1). Comparisons are also drawn from particular plants and creepers. The aspects generally touched upon are tenderness and beauty. Śamī creeper is very tough to cut (1, 19, v. 17). Śamī stick holds in itself the capability of producing fire (IV, 98, v. 4). Mādhavi creeper is dried up by the action of the wind (III, 72, v. 28) The Atimuktalatā is encumbered with foliage and entwines a mango tree (III, 74, 8). The tenderness of Navamālikā flower is quite proverbial in Śakuntala (I, 19, 2). The sun's rays produce a blighting effect on a Navamālikā flower (II, 52, v. 8). What man can have the heart to pour hot water on a Navamālikā creeper ? (IV, 94, 3). The Vanajyotsnā creeper in blossom is mentioned in I, 23, 3. She is also said to be the sister of Śakuntalā (IV, 107, 11). Particular flowers are also made use of for comparisons. A Kunda flower, filled with dew at dawn tempts a bee, but he is prevented from enjoying it on account of the cold dew (V, 133, v. 19). The tenderness of a blue lotus and the toughness of a Śamī creeper are contrasted (1, 19, v. 17). A lotus, though intertwined with moss, is charming (I, 20, v. 18). Lotus leaves are used as fans (III, 82, v. 19). Dust on a road resembles the soft pollen of lotuses (IV, 106, 11). A lotus is the habitual dwelling of a bee (V, 118, v. 1). A beautiful forearm looks like a red lotus stalk (VI, 170, 13). The tender hand of a child resembles a lotus opened at early dawn. (VII, 195, v. 16), The sun produces an injurious effect on the night-lotuses (III, 79, v. 15). In the absence of the moon a lake full of night-lotuses is really a distressing sight (IV, 95, v. 3). In his presence they

blossom forth (V, 141, v. 28). Day-lotuses blossom only in the presence of the sun (V, 141, v. 28).

Youth is as inviting as a flower (I, 22, v. 19). Unenjoyed beauty is like an unsmelt fragrant flower (II, 54, v. 10). A bee sucks honey from a fresh flower (III, 84, v. 22). He is a thief stealing away honey from flowers (VI, 171, 2). Vernal blossom indicates the union of creepers with the vernal season (VII, 205, 8). Appearance of flowers is an indication of youth (I, 23, 3). Lips are as red as the red foliage of trees (I, 22, v. 19). The lower lip of a maiden looks as beautiful as the tender foliage of trees, untouched by hand (VI, 172, v. 20). The innocent beauty of a maiden is like the tender foliage of trees untouched by hand (II, 54, v. 10). The colour of the palms of the hands emulates that of the young shoots of trees (IV, 101, v. 5). Red foliage is contrasted with the pale dried white leaves of trees (V, 128, v. 13). A vigorous young man with a promising career is compared to a vigorous off-shoot of a tree (VII, 197, v. 19). Leaves of trees set in motion by the wind are as it were their fingers calling the beholder to come near them (I, 21, 1).

Branches of trees are their arms with which they embrace Śakuntalā (IV, 107, 15). Trees, bent with the burden of abundant fruit, illustrate the modesty of obliging persons (V, 127, v. 12). A Yigin practising spiritual contemplation is as motionless as the trunk of a tree (VII, 191, 11). Roots of trees are the dwelling place of ascetics (VII, 198, v. 20).

Trees are the friends of Śakuntalā (V, 105, v. 10). They bear the excessive heat of the sun and give shelter to people under their shade (V, 124, v. 7).

To come now to particular trees and plants. The *Sahakāra* or mango tree alone can bear the burden of

the Atimuktalatā (III, 74,7-8). He is the lover of the Vanajyotsnā creeper (I, 23,4), and also of the Navamālikā (IV, 108, v. 13). Mango blossom is no more remembered by a bee when it has secured a happy dwelling in a lotus (V, 118, v. 1). It is the very life of the vernal season (IV, 151, v. 2). It produces intoxicating effect on bees (VI, 151, 6). *Reeds* are swept down by the torrentuous onflow of river waters (II,45,5). Sugar-cane is mentioned in VI, 179,16. A *Candana* tree, though it makes happy all creatures resorting to it, is itself defiled by the presence of a young black cobra inside (VII,196,v. 18). A *kesara* tree looks as if entwined by a creeper when Śakuntalā takes her seat at its root (I,21,6). Demons are compared to *thorns* (VII, 185,v. 3.)

Comparisons from *Agriculture* are very scanty : Seed sown at the right time produces abundant crop (VI,177,v. 24).

(2) *Animal Life*—Animal Life brings with it all the affections of the animal body. These also are made use of in comparisons : Duṣyanta is said to suffer from a disease viz. Śakuntalā (VI, 157,8) and his case is wellnigh hopeless. A pimple growing upon a boil is referred to in II,41,10. The overpowering hunger of the Vidūṣaka devours him (VI, 165, 11).

Particular beasts are made use of in comparisons to illustrate some quality found in them prominently in common with other objects :—The deer is a commonplace standard of comparison in Sanskrit poetry. Śakuntalā's eyes are like those of a female deer (I,33, v. 24) and also of a male deer (VI,157,v. 7). The sweet glances of a deer resembling those of Śakuntalā desist the king from killing him (II,46, v. 3). A deer is said to be the adopted son of Śakuntalā (IV,109, v. 14). The king on account of his deep love for hunting resembles

a wild elephant roaming on mountains (II, 47, v. 4). The king taking rest after the duties of the day looks like an elephant-lord retiring to a cool place after having conducted the herds to their pastures (V, 122, v. 5). Mātali giving a severe thrash to the Vidūṣaka compares himself to a tiger pouncing upon a struggling prey (VI, 180, v. 27). A mouse seized by a cat is hopeless of life (VI, 180, 8).

A serpent expands its hood when offended (VI, 182, v. 31). A black serpent defiles a *Candana* tree by its presence (VII, 196, v. 18).

A mass of dust settling down on the trees in the penance grove looks like a swarm of locusts (I, 38, v. 29). A cuckoo feels an intoxicating joy at the sight of mango blossom (VI, 151, 8). The sweet notes of the cuckoo issuing from trees are supposed to be their permission to Śakuntalā at the time of her departure to her husband's house (IV, 105, v. 10). The cuckoos are supposed to be reared up in the nests of crows (V, 138, v. 22). The female *Cakravāka* bird is referred to in III, 85, 3). Her cry indicates her pangs of separation from her mate (IV, 110, 13). A bee sucks honey from a fresh flower in a very careful and kind manner (III, 84, v. 22). It is also said to have resorted to a lotus after having kissed the mango blossom (V, 118, v. 8). It cannot enjoy a Kunda flower filled with morning dew (V, 133, v. 19). It is a welcome guest to a creeper in flowers (VI, 171, 10). A female bee does not drink honey without her lover out of excessive love for him (VI, 171, v. 19). Absence of flies in a place implies complete seclusion (II, 51, 5 ; VI, 158, 5).

IV. Domestic Life—Comparisons from this department of knowledge are very varied and homely :—

A man who has lost his relish for *dates* may have

a desire for *tamarind* (II, 53, 1). *Fresh honey* is referred to in II, 54, v. 10. Sensual women are *honey-tongued* (V, 137, 13). The king is also said to be *honey-tongued* (V, 139,2). *Sugar-cane* is mentioned in VI, 179,16. A spark of fire on a pile of cotton works havoc (I,13, v. 10). Fire, when stirred, burns with a glowing flame. (VII, 182, v. 31). No other agency than fire can consume things (IV, 91,19). A man experiences darkness even though a lamp be near, if a screen covers the same. (IV, 178,18-19). Water can not flow from a lower to a higher level : just in the same way the heart of the king cannot turn back from Śakuntalā (III, 65, foot note 1). The administration of government is compared to a parasol with its staff held in hand (V, 123, v. 6). A mirror covered with dust does not reflect a clear image but the same wiped clean gives a well-defined image very easily (VII, 210, v. 32). Indra's thunderbolt was as good as an ornament since it proved ineffectual in his war with demons (VII, 206, v. 26). A silken flag keeps fluttering backwards though its staff is carried forward : just of such a nature was the state of the king's mind when returning to the capital after his first love (I, 40, v. 31). Penance is the wealth of ascetics (IV, 91, v. 1). Restraint of body and mind is a treasure in itself (IV, 111, v. 17). A daughter is a deposit of money (IV, 117, v. 22). The same relation exists between Śāradvata and the pleasure-loving souls of the city as is to be seen between one who has bathed and one anointed, between a pure man and an impure one, between one who is wide awake and one sleeping and finally between one who is fettered and one who is quite free (V, 126, v. 11).

Family relations are also made use of in comparisons. As the drama presents to us on a miniature

scale an idealized picture of ancient Indian life in all its varieties, it is but natural that a prominent place should be given to these relations :—A wife's natural influence over her husband is referred to in VII, 210, v. 32. A mango tree is the husband of Navamālikā creeper (IV, 108, v. 13). The earth is the co-wife of a ruling sovereign (IV, 115, v. 20). A male bee and a female bee are mentioned in VI, 172, v. 20. Comparisons illustrating *parental affection* are the following :—Animals are to be looked upon as children (VII, 194, 4). A certain deer was the adopted son of Śakuntalā (IV, 109, v. 14). A king protects his subjects as his own children (V, 122, v. 5). Comparisons illustrating *fraternal* relations are also noteworthy. The king's subjects are said to be his brethren (V, 124, v. 7 and VI, 176, v. 23).

V. *Social Life.*—In ancient India hospitality to guests was regarded as almost a virtue. The hospitable treatment given by Indra to Duṣyanta is spoken of in glowing terms in VII, 184, 3. The bee is a welcome guest to creepers in flowers (VI, 171, v. 19). The polite manner of addressing persons is referred to in V, 119, 12. Friendship hastily formed without sufficient knowledge of each other's hearts is sure to turn into enmity (V, 139, v. 24). Good persons always look upon their friends with favour (VI, 187, v. 29). An ideal act of favour is compared to taking a man from the stake and mounting him on an elephant (VI, 148, v. 21).

As opposed to friendship villainy is the subject of certain comparisons :—The king is compared to a sweet-tongued villain (V, 139, 2). He is also compared to a thief (V, 134, v. 20). The bee is said to be a thief stealing honey from flowers V. 126, v. 10. A city

thronged with people is compared to a house on fire surrounded by large crowds (V, 126, v. 10).

The idea of imprisoning is implied in VI, 172, v. 20, where the king becomes jealous of the bee represented in the picture as hovering round the face of Śakuntalā and wishes to close him up in a lotus. The delight felt by some persons when they practise mischief knowingly is illustrated by a parallel from daily life viz. paining the eyes of a man so as to cause a flow of tears and then to ask him the cause of it (II, 45, 1). Comparisons relating to military life, hunting and other sports are also to be found :—The Sūtradhāra is carried away by the enchanting melody of his lady like Duṣyanta in pursuit of a swift-footed deer (I, 9, v. 5). Again in I, 10, v. 6 Duṣyanta in his turn is compared to God Śiva chasing a deer.

The apparently virtuous conduct of a hypocrite is compared to an armour (V, 138, 4). The torments of a repenting heart are like those produced by a poisoned arrow-head shot in the heart (VI, 160, v. 9). The relief felt when such an arrow-head is taken out is described in VII, 204, 9. The twanging sound of the bow is likened to the terrific growl of a wild beast (III, 64, v. 1).

The earth is imagined to be a big ball thrown high aloft in the air (VII, 189, v. 8).

VI. Religious Life.—Śakuntalā is congratulated by her female companions upon her getting a worthy husband by coincidence like the oblation of a sacrificing priest, which falls direct into the sacrificial fire even though his sight is obscured by smoke. She is also compared to knowledge delivered over to a good student in as much as such knowledge need not at all be deplored (VI 97, 19-20). The Vidūṣaka, describing

how he was roughly handled by Mātali, compares himself to a sacrificial victim gradually done to death (VI, 182, 1).

The following comparisons illustrate the two religious doctrines of Karman and Mokṣa :—

The fruit of various acts done in former births comes to maturity (II, 54, v. 10). There is no possibility of a sage getting Mokṣa if he is seduced by the Apsarases (V, 119, 8-9).

VII. *Mythology and other literature.*—Comparisons drawn from this source of knowledge show that Kālidāsa's knowledge of ancient works embodying myths and legends was quite sound.

The idea of God Śiva pursuing a deer is taken from the Purāṇas³ (I, 10, v. 6). The goddess Lakṣmī as the one and only standard of beauty, appears to have been equalled if not surpassed by Śakuntalā⁴ (II, 53, v. 9). A divided state of mind leading to utter inaction is well illustrated by alluding to Trisanku suspended midway between heaven and earth.⁵ (II, 61, 21). Reference to the Viśākhā constellation and the digit of the moon (III, 74, 11) seems to have its origin in the astronomical fact that the Viśākhā constellation appears near the moon when the sky is bright and shines brightly viz. during the months of April and May.⁶

Reference to Yayāti and his wife Sarmiṣṭhā in IV, 104, v. 7. is from ancient legendary history.

³ Monier William's edition, p. 9, foot-note 2.

⁴ I am inclined to understand the allusion in this way; otherwise, the force of the word अपरा would not be clearly explained.

⁵ See M. W., p. 91, foot note 3.

⁶ Cf. Vikramorvaśiya Act 1.— चित्रलेखाद्वितीयं प्रियसखीमुर्वशी गृहीत्वा विशालासहितो इव भगवान् सोम उपरिथतः राजपि: ।

Apsarases or the celestial nymphs as employing seductive artifices against sages with suppressed passions are mentioned in V, 119, 8-9.

The sun with horses yoked to his chariot and the serpent god *Śeṣa* as bearing the burden of the earth are mentioned in V, 121, v. 4. The sun as having seven horses is referred to in VI, 182, v. 30. Aruṇa, the charioteer of the sun is said to destroy darkness by the power acquired from his master (VII, 185, v. 4).

Kālakūṭa, the poison of poisons, illustrates the poisonous influence of the king's harem (VI, 174, v. 21).

Duṣyanta draws an imaginary picture of his ancestors, not getting the requisite oblations for want of a son to offer the same to them. (VI, 177, v. 25).

No distinction exists between Indra and Duṣyanta except this that while Indra's chariot moves on the earth without touching the ground, that of Duṣyanta touches it (VII, 191, v. 1).

Duṣyanta thinks himself to be as it were in a deep lake of Amṛta while at the asylum of Mārīca, so very rich is the atmosphere of the place in spiritual happiness (VII, 192, v. 1).

The mythical interpretation of the lunar eclipses together with the legend regarding the love of Rohinī and the moon is made use of in VII, 202, v. 22 to illustrate the separation of Śakuntalā from Duṣyanta and her re-union with him.

In VII, 208, v. 28, Duṣyanta is compared to Indra; his son, Sarvadamana to Indra's son Jayanta and Śakuntalā to Paulomī, the wife of Indra.

As Duṣyanta destroyed a race of demons hostile to Indra he is compared to Nṛsimha, the fourth incarnation of Viṣṇu (VII, 185, v. 3).

VIII. *Fine Arts*.—Allusions to Fine Arts in the works of Kālidāsa go to prove that apart from his being a poet, he had a deep knowledge and a critical appreciation of other arts allied to poetry viz. painting and music.

The variegated audience in a theatre listening with eager attention to the melodious music of the stage is said to be like an assemblage of persons represented in a picture (I, 8, 1-2). How an artist in painting an ideal picture combines all the beautiful forms is well described in II, 53, v. 9, where the king dazzled by Śakuntalā's exceptional beauty indulges in various fanciful theories regarding her origin. Another principle of the pictorial art that the objects represented in a picture must appear forth in full relief is illustrated in VI, 166, 7, where the picture of Śakuntalā painted by the king is described at length. In the description of the same picture it is said that she is represented as slightly exhausted on account of her having watered the plants in the penance-grove (VI, 167, 15).

Comparisons from music are very scanty in the Śākuntala, though in other works of Kālidāsa many more will be found. The emotive aspect of music is implied in V, 119, 1, where the king appreciates the music of his former favourite Harīsapadikā.

IX. *Mental States*.—Comparisons dealing with the states of mind either in a sound or deranged condition as well as from mental experience of a general nature are also to be found :—

No coherence of speech is to be expected of a mad man (IV, 91, v. 1). The king conversing with his finger-ring in a fit of erotic reverie is compared to a mad man (VI, 165, 5). A blind man mistakes even a

garland thrown on his head for a serpent (VII, 203, v. 24.) Mental illusions whether those experienced during sleep or those produced by a conjurer or those resulting from a want of mental concentration are referred to in VI, 162, v. 10.

The extreme velocity of Indra's chariot descending precipitately towards the earth produces a sort of illusion that the earth itself is descending from the summits of mountains emerging suddenly into view (VII, 189, v. 8). The transition from the false knowledge of a thing to the true knowledge of the same by means of inference based on reliable evidence is described in VII, 209, v. 31. From VI, 173, v. 31, we know how our own absorbing interest in certain things can make dead things alive.

X. Abstract World—The chief purpose in introducing comparisons in any composition is to illustrate abstract notions by means of concrete instances. But in Kālidāsa as in some English poets like Shelley and others, we notice a reversion of the usual process. At times a personified abstraction becomes the standard of comparison. The following are the instances of abstract comparisons :—

An elephant, terrified at the sight of the king's chariot, enters the sacred grove of Kanva, appearing as if he were a corporeal interruption to his penance (I, 38, v. 30). In VII, 193, v. 13, Śakuntalā, who was in fact the object of the king's desire, is identified with the desire itself. The happy union of Duṣyanta, Śakuntalā and their son is compared to an accidental combination of Faith, Fortune and Action (VII, 208, v. 29). The faultless beauty of Śakuntalā is compared to a full reward of meritorious deeds (II, 54, v. 10). The king in a repenting mood, recounting his first happy love-

making with Śakuntalā compares it to merit worn out with that much of scanty reward (VI, 162, v, 10). Other instances of personifications are commonly met with :—Disasters crowd at loop holes (VI, 158, 9). Fate is indeed all-prevailing (VI, 160, 5). The ambition of the magnanimous is indeed high-soaring (VII, 192, 13). Duṣyanta's fame is established on the surface of heaven (VII, 186, 7). Hunger has almost eaten up Vidūṣaka (VI, 165, 11).

XI. Conventions, poetic and otherwise—It is a fact, patent to all lovers of Sanskrit literature, that many of the ideas which were originally full of fire and fancy in spite of their exaggeration, became in the hands of later poets quite petrified and conventional. It is no wonder, therefore, if we find in Kālidāsa side by side with pure gold some dregs of the baser metals in spite of all his alchemy of imagination.

The cool rays of the moon pour down fire on a love-smitten person (III, 16, v. 3). There seems to have been a set description of love-struck persons given in some ancient works since it is remarked by Anasūya that the above-named description is applicable to her friend Śakuntalā (III, 70, v. 14). The comparison of an eye-brow with a creeper is quite hackneyed (III, 77, v. 13). The influence of the moon on the night-lotuses, which is referred to in almost all the Sanskrit Kāvyas, is a tiresome source of comparisons (III, 79, v. 15) ; (IV, 95, v. 3). The earth is looked upon as a co-wife of a sovereign (III, 81, v. 18). The separation of the male and female Cakravāka birds is quite proverbial (III, 85, 3). The Malaya mountain as the natural home of Candana trees is referred to in IV, 113, 12. The young ones of the cuckoos are brought up in the nests of crows (V, 138, v. 22). It is for the naturalists

to test the truth of this convention. The representation of Cupid as armed with bow and arrow is the same in English and Sanskrit poetry (V, 138, v. 23 ; VI, 153, v. 4). Mango-blossom is the sixth arrow of the God of Love (VI, 152, v. 3 ; VI, 158, v. 8).

The intoxication felt by bees at the sight of mango-blossom, though natural, has become almost a passport to the attainment of poetic dignity (VI, 151, 8).

The peculiar virtue of *Hamsa* birds to suck up milk only and discard water when a mixture of both is offered is a time-worn convention (VI, 181, v. 8.)

Some general conclusions—From the foregoing conspectus of ideas it will be abundantly clear that Kālidāsa's susceptibility to the uncommon aspects of common things was exceptionally keen. Even from the results of analysis at my disposal, I am happy to note that *his intellect was truly comprehensive* and it appropriated every thing that stood within its range. His *knowledge of nature* was quite first-hand. Duṣyanta's first love has gained a permanent footing. He says :—

न च निम्रादिव सलिलं निवर्तते मे ततो हृदयम्

“ It is as impossible for his heart to leave the object of his love as for water in a low place to flow to a higher one.” (III, 65, foot-note 1.)⁷

To take another instance. No comparison depicts more skill in word-painting than what is contained in the description of dust, first raised by the hoofs of horses and then settling down on the trees of Kaṇva's penance-grove. The mass of dust is compared to a

⁷ Though this stanza is given in the foot-note in the edition I have used for reference, I am inclined to ascribe it to Kālidāsa on account of its simplicity and beauty.

swarm of locusts :

शलभसमूह इव रेणुः.....पतति

Does not this comparison bespeak Kālidāsa's freshness of outlook on nature ? Has he not the rare *power of visualizing things by means of slight suggestions*, which Tennyson or Browning among others depict in abundance ?

Another noteworthy point with regard to his knowledge of nature is that *he drew no line of demarcation between nature and man*. Relations of men in society are illustrated by those between plant and plant. In particular we find in the Śākuntala that all differences between the plant life and the animal life are completely obliterated and life as a whole is presented to us.

A very exalted type of imagination is required to describe in detail the whole aerial experience of Duṣyanta. How for instance the earth appears to have been tossed up towards Duṣyanta in his downward flight is sublimely described in VII, 189, v. 8. There were no aeroplanes in Kālidāsa's time and still wonderfully enough the whole description tallies *mutatis mutandis* with that given by Mr. H. G. Wells⁸ in one of his articles, where he informs us of his first aerial experience.

Then again I have to emphasize that every comparison can never be a sign of genius. Comparisons like every thing else in this world have their own aesthetics. In the first place they must be apt. When a pedant on seeing a high tower remarked : "What a phrase of building !" he really proved his incapacity to be either a child or a poet.

8 "How an Englishman looks at the world", passim.

That Kālidāsa's comparisons show this *aptness* without fail can be shown by referring to a few instances. Priyamvadā congratulating her friend Śakuntalā upon getting a suitable husband says :—

दिष्ट्या धूमाकुलितव्यरपि यजमानस्य पावक एवाहुतिः प्रतिता ।

वत्से सुशिष्यपरिदत्ता विद्येवाशोचनीयासि संवृत्ता ।

(IV, 69, 19-20).

The aptness and the beauty of the comparisons consist in the poet's power to illustrate a worldly relation by means of an instance from religious life.

On the other hand in the hands of the Vidūṣaka every thing serious and sacred becomes vulgar and comic. When thrashed out severely by Mātali he says :—इष्टपद्मारं मारितः । (IV, 182, 1). Elsewhere speaking of Duṣyanta gone mad with love, he says :—लड्डित एष भूयोऽपि शकुन्तलाब्याधिना etc., (VI, 157, 8). Bergson's theory of laughter is fully illustrated in the development of the Vidūṣaka's character, for, while speaking of the soul he always refers to the body and all its vulgar affections.⁹

Other qualities of comparisons such as novelty, variety etc. need no particular illustration as they are apparent from the classification of the sources of comparisons furnished above.

The student of English literature will be surprised not to find in Kālidāsa those 'long-tailed' comparisons which he finds in abundance in Milton or in Homer. The deliberate hammering out of a single idea, howsoever skilfully managed, produces on us an impression of artificiality, which is in no way helpful to work of creative art, for, artifice can never stand on par with creative art. Kālidāsa's comparisons are almost all of them direct and they appeal to an Indian

9 Laughter by H. Bergson, p. 53.

mind as they depict Indian civilization nurtured in the forest and not within the city walls as in the case of Greeks and Romans. There is, therefore, noticeable in all of them a freedom of spirit resulting from every-day contact with the vital force in Nature.

PHILOSOPHY

INDIAN AESTHETICS.

BY

M. HIRIYANNA.

It has become somewhat of a commonplace in these days to speak of the ancient Hindus as having achieved distinction in Philosophy. But the word 'philosophy' is so loosely used and the phases of philosophic investigation are so many and so varied in character that such an opinion, standing by itself, cannot be taken to indicate anything beyond a certain aptitude of the Hindu mind for abstract speculation. A signal illustration of the indefiniteness of this opinion is furnished by Max Müller, the very scholar that was largely responsible for giving currency to the view that the ancient Hindus were highly gifted philosophically; for while he at one time described them as 'a nation of philosophers', yet, at another time, gave out as his considered opinion that 'the idea of the beautiful in Nature did not exist in the Hindu mind.'¹ The fact is that a vague and general statement like the above is of little practical value unless it is supported by evidence of progress made in the various departments of philosophic study, such as Logic, Psychology and Metaphysics. Here is a vast field for the student of Indian antiquities to labour in and the harvest, if well garnered, will be of advantage not only for the history of Indian thought but also, it may be hoped, for Universal Philosophy. The object of the present Paper is to indicate, however slightly it may be, the nature of the advance made by the Indians in one bye-path of philosophy, viz., aesthetics or the

¹ See 'The Philosophy of the Beautiful' by William Knight, Part I, p. 17.

inquiry into the character of Beauty in Nature as well as in Art.

2. The most noticeable feature of Indian philosophy is the stress which it lays upon the influence which knowledge ought to have on life. None of the systems that developed in the course of centuries in India stopped short at the discovery of truth ; but each followed it up by an inquiry as to how the discovered truth could be best applied to the practical problems of life. The ultimate goal of philosophic quest was not knowledge (*tattva-jñāna*) so much as the achievement of true freedom (*mokṣa*). Indian philosophy was thus more than a way of thought ; it was a way of life ; and whoever entered upon its study was expected to aim at more than an intellectual assimilation of its truths and try to bring his every-day life into conformity with them. Consistently with this pragmatic aim, ethics occupies a very important place in Indian philosophy. Like ethics, aesthetics is dependent upon philosophy and like ethics, it aims chiefly at influencing life. When such is the kinship between ethics and aesthetics, is it probable that a people who devoted so much attention to one of them, altogether neglected the other ? Is it conceivable that they who showed special power in the grasp of the good did not even stumble upon the kindred conception of the beautiful ? We are not however left to such vague surmises ; for, not infrequently we find in Sanskrit philosophical works² parallels drawn from art which imply that the close relation of the beautiful to the good and the true was not all unknown to ancient India. We have even more direct evidence in the

² Compare e. g. *Sāṃkhya-Kārikā*, sl. 65 ; *Sāṃkhya-Tattva-kaumudi* on sl. 42, 59 ; and *Pañcadasi* of *Vidyāranya*, ch. X.

numerous works in Sanskrit on Poetics which, though their set purpose is only to elucidate the principles exemplified in Poetry and the Drama, yet furnish adequate data for constructing a theory of fine art in general. A consideration of the teachings of these works shows us that Indian aesthetics had its own history ; and the process of its evolution as may well be expected, followed closely that of general philosophy.

3. It is well-known that the earliest philosophy of India consisted in the explanation of the universe by means of a number of supernatural powers called 'devas', 'the shining ones', or 'gods'. This pluralistic explanation however soon appeared inadequate to the growing philosophic consciousness of the Indian ; and a quest began thereafter whose aim was to discover the unity underlying the diversity of the world. The history of this quest is very long and can be traced from the *Mantras*, through the *Brāhmaṇas*, down to the period of the *Upaniṣads*. Various principles were in turn regarded as representing this ultimate reality some concrete, others abstract—and although each solution was in turn given up as unsatisfactory, the search itself was not abandoned until an abiding conclusion was reached in what is known as 'the *ātman* doctrine' of the *Upaniṣads*. The central point of this doctrine is that whatever is, is one ; and that its essence is manifested more clearly in the inner self of man than in the outer world. This doctrine brought about a total revolution in the point of view from which speculation had proceeded till then ; for the ultimate reality was no longer regarded as something external but as fundamentally identical with man's own self. The enunciation of the absolute kinship of Nature with Man marks the most important advance

in the whole history of Indian thought. I am not, however, for the moment, concerned with this philosophic solution in general, reached in the Upaniṣadic period. I am interested only in emphasising one aspect of it, viz., that what we commonly regard as real is not in itself the ultimate reality but only a semblance of it. The world of sense, equally with the world of thought, is but an appearance of the ultimate Truth—an imperfect expression of it but yet adequate, if rightly approached, to point to the underlying unity. Neither our senses nor our mind can grasp this unity, but so much of it as they can grasp is sufficient to find out its true meaning and realise it within ourselves.

4. There is a second aspect of Indian philosophy to which it is necessary to draw attention before speaking of Indian art. The earliest philosophy of India had a supernatural basis. Although the objects of early Aryan worship were in reality only powers of Nature, there were supposed to be working behind them supernatural beings. So long as this belief continued, the ambition of the Indian in this life was to secure the favour of those beings with a view to attain companionship with them hereafter. This eschatological view changed with the change of belief in the gods, but yet for long afterwards there lingered the view that the highest good that man could attain was attainable only after death. With an ideal like this, man naturally looked upon the present life as merely a passage to another and a better one. He lived mainly for the coming world, disregarding, if not altogether discarding, the realities of this life. Asceticism was the natural outcome of it. In course of time this ideal of practical life also underwent a change, not less important than the change on the speculative side to which I

have already referred and it came to be believed that the highest ideal that man could attain was attainable on this side of death, here and now. The full development of this view belongs to the period that followed the composition of the classical Upaniṣads but its source can be traced earlier in those Upaniṣadic passages which refer to *Jīvanmukti*³. *Jīvanmukti*, to speak from the purely philosophic standpoint, marks the highest conception of freedom. It is one of the points where Indian philosophy emerges clearly from Indian religion; for, the goal of existence according to this conception is not the attainment of a hypothetical bliss *hereafter* but the finding of true freedom on this bank and shoal of time. It is difficult to exaggerate the importance of this change. It transformed the whole outlook of the Indian upon life and remoulded his ethical ideal. The ideal, no doubt, was yet as far as ever from the average man; but what once was more or less a matter of pure speculation had been brought within the possibility of positive experience. The aim of life was no longer conceived as something to be sought for beyond this world, but to be realised *here*, and if one so willed, *now*. The new ideal was the achievement of a life of harmony, not thro' the extinguishment of interests but by an expansion of them—not through repressing natural impulses but by purifying and refining them. It was a mode of living characterised by passionless purity and an equal love for all, such for instance as is described in glowing terms more than once in the Bhagavadgītā⁴. For the realisation

³ The word *jīvanmukta* is not known to the Upaniṣads; but the conception is there all the same. Cf. e.g., Katha. Up. v. i., vi. 14.

⁴ e.g., v., 23-5.

of this ideal, the training of the feelings was a necessary preliminary and in consequence, the first aim of life came to be looked upon not so much the cultivation of the intellect or the development of the will; as the culture of the emotions.

5. In these two characteristic features of early Indian philosophy, it seems to me, we have the main influences which moulded the theory of art as it is disclosed to us in Sanskrit works on Poetics. We do not know when this class of works began to appear, Tradition is at one⁵ in counting *Bhāmaha* among the earliest writers on Poetics; but in him we see the subject has already assumed a definite shape. His name, along with those of some others like *Udbhaṭa*, *Rudraṭa*, *Dāṇḍin* and *Vāmana* is associated with a distinctive canon of poetry. There are indeed differences in matters of detail among these writers. For instance, there is no clear distinction recognised between *guṇas* and *alāmkāras* by some,⁶ while others give the one or the other of these the first place in judging the worth of a poem⁷. It is not necessary to enter into these details here; for all these writers, in spite of minor differences, exhibit cognate ways of thinking. We may therefore regard them as, on the whole, representing the first stage in the growth of poetic criticism. In the writers of this *prācīna* school we find the subject of poetry dealt with under three heads *doṣas*, *guṇas*, and *alāmkāras*. The last, *alāmkāras*, may be left out of consideration here; for, in the first place, they are not recognised by all to be essential,

5 Comp : e.g., first śloka of the *Pratāparudriya*; *Alamkāra Sarvasva* (Nir : S. Pr.) p. 3.

6 e.g., by *Udbhaṭa* (see *Alamkāra-Sarvasva*, by Ruyyaka p. 7.)

7 See *Vāmana* : ' *Kāvyaalamkāra Sūtra*' III, i, 1, 2, and 3.

and in the second, they almost exclusively relate to imaginative literature and have no proper place in any general theory of art. Some of the conditions laid down under the remaining two heads are intended only to secure logical or grammatical requirements such as coherence of thought and correctness of language. Even the others as we shall presently see, rarely allude to the central essence of poetry. Where they do involve a reference to this essence, its importance is misjudged and only a subordinate place is assigned to it.⁸ The attention of this school is practically confined to the outward expression of poetry viz., *sabda* (word) and *artha* (sense). Certain forms of these are regarded as *dosas* and certain others as *gunas*; and it is held that what confers excellence on Poetry is the absence of the one and the presence of the other.

6. There is another school known as the later or *navina* school of critics, the theory advanced by whom is far different. As in the case of the earlier school, this also seems to have had more than one branch. We shall here consider the most important of them as represented by the *Dhvanyāloka*. Apparently it is the oldest work of the kind extant; but this very work contains evidence of the fact that the point of view which it adopts in judging poetry had been more or less well-known for a long time before.⁹ This work starts by distinguishing between two kinds of meaning—the explicit and the implicit—and attempts to estimate the worth of a poem by reference to the latter rather than to the former.¹⁰ The explicit mean-

⁸ Vide *Alamkāra Sarvasva* by Ruyyaka, pp. 3-7; *Dhvanyāloka* pp. 9-10.

⁹ Vide śloka i, i ; iii, 34, 52, also the final śloka of the *Āloka*.

¹⁰ Vide *Dhvanyāloka* i, 3-5.

ing, no less than the words in which it is clothed, constitutes, according to this view, the mere vesture of poetry.¹¹ They together are its outward embodiment—the necessary conditions under which a poetic mood manifests itself. These external and accidental features alone appealed to the earlier school. But the critic of the new school concentrated his attention on the implicit meaning which forms the real essence of poetry. From this new standpoint things like *doṣas* or *guṇas*, in settling the nature of which there was once so much controversy, are easily explained. It is as though we are now in possession of the right key to the understanding of all poetry. Whatever in sound or sense subserves the poetic end in view is a *guṇa*; whatever does not, is a *doṣa*.¹² *Doṣas* and *guṇas* are relative in character. There is no absolute standard of valuation for them. They are to be judged only in reference to the inner meaning which constitutes the truly poetical. The artist never really feels concerned about them; for, a thought or feeling experienced with poetic intensity is sure to find expression. The expression is also likely to be more or less imperfect, but the question is not whether it is perfect, but whether it is adequate to convey the thought or emotion to others. If it is adequate, it is good poetry, otherwise, it is not.

7. The implicit meaning is three-fold and the poet may aim at communicating a fact (*vastu*) or transferring an imaginative (*alamkāra*) or an emotional mood (*rasa*). The first is obviously the least poetic and whatever artistic character it may possess is

11 Id. I, 7-12.

12 Cf. Dhvanyāloka, ii, 6.

entirely due to treatment and not to subject. We may, therefore consider here only the remaining two, which have their bases respectively in imagination and feeling. True art is no doubt a compound of feeling and imagination but in any particular case the one or the other may predominate and the two-fold classification should be regarded as having reference to the predominant factor. In this view art represents the almost spontaneous expression of a responsive mind when it comes under the spell of an imaginative or an emotional mood. It was this expression—the outward element of poetry and not its inner springs which the older school of critics analysed¹³. The later school, as we have already seen, occupied itself with what this expression signifies. The expression was important to them only as a means of suggesting or pointing to the implicit significance. Here we find a theory of art which exactly corresponds to the doctrine of *ātman*. Just as the passing things of experience are not in themselves real but only imperfect manifestations of Reality, so word and explicit meaning are but the exterior of poetry and until we penetrate beneath that exterior, we do not reach the poetic ultimate.

8. So far we have considered the essence of poetry as consisting in the imaginative thought or the emotional mood which a poet succeeds in communicating to us. But gradually more stress came to be laid upon the latter than upon the former. Under the influence of the altered ethical ideal to which allusion has been made above art came to be more and more utilised as a means of emotional culture. There was peculiar fitness in its being so used, for it

13 See Dhvanyāloka, iii, 52.

can, not only teach, but also please and while it can successfully persuade, it can keep its persuasive character concealed from view. It was thus that poetry came to be viewed as possessing a double aim—the direct one of giving aesthetic delight (*Sadyah-para-nirvṛti*) and the indirect one of contributing toward the refinement of character¹⁴. This particular use to which art was put made *Rasa* more important than either *Vastu* or *Alamkāra*¹⁵. It is this change in the nature of Sanskrit poetry that is meant when it is stated that *rasa* is the *ātman* of poetry—a statement which by the way shows clearly the dependence of this canon on the *ātman* doctrine of the Upaniṣads. When the predominance of *rasa* came to be insisted upon as indispensable to artistic excellence, many of the systems of philosophy applied their own fundamental principles to its interpretation so that in course of time there came to be more than one theory of *rasa*. I shall devote the rest of the paper to an elucidation of these theories according to two of the chief systems, viz., *Vedānta* and *Sāṃkhya* alluding incidentally to the corresponding conceptions of Beauty in Nature :—

9. And first as regards the *Vedānta*. Among the various approximate terms used in the Upaniṣads to denote *Brahman*, one is *Ānanda*. *Ānanda* means bliss ; and *Brahman* according to the monistic and idealistic teaching of the Upaniṣads, represents the inner harmony of the universe. *Brahman* is termed *ānanda* because of the restful bliss that results from realising that harmony. *Brahman* is so termed for instance in the Tait. Up. iii. The appropriateness of the term *ānanda* consists just in this suggestion that the harmony of the universe must be realised in one's own

14 Cf. e.g. *Kāvyaprakāśa*, i, 2.

15 Cf. e.g., *Dhvanyaloka*. p. 27 (con).

experience and not merely intellectually apprehended; for there can be no such thing as mediated *ānanda*. This word contains the clue to the whole aesthetic theory of the Vedānta. Common experience takes for granted that variety is the ultimate truth. According to the Vedānta, the final truth lies in the unification of this variety through a proper synthesis. But this unification is what takes place in perfect knowledge. Commonly we are occupied with appearances which give only a fragmentary view of Reality. They alone concern us in our every-day life. But he who attains perfect knowledge—the *jivanmukta*—transcends this fragmentary view. He may continue to perceive variety; but it ceases to have any ultimate significance for him. He merges in the unity which he realises all separate existence including his own and enjoys *ānanda*—the peace that passeth understanding. This higher view-point is not possible for us while we are yet on the empirical plane. We are absorbed in the narrow distinction between the self and the not-self. But sometimes, though rarely, there is a break in this routine and then in the sudden transition from one empirical state to another, we transcend our narrow selves. Our connection with the work-a-day world seems to snap. We do not indeed realise then like the knower, the unity of all that is, but we yet resemble him in one respect, in that we lose sight of ourselves and feel delight, however short-lived, it may be.

10. But among the myriad impressions that reach us from the outer world, what is it that gives rise to such an attitude? This question admits of a variety of answers. It is now symmetry, now novelty, and now something else; and it is this variety that accounts

for the almost bewildering number of theories of the Beautiful that one finds in any history of aesthetics. According to the Vedānta, these do not constitute true Beauty at all, but are only its outward and visible symbols. Though diverse in themselves they point to the same underlying harmony which constitutes real Beauty. But, this perfect Beauty, which is identical with the ultimate Reality, is revealed only to the knower. We perceive only its outward symbols and we may describe them as beautiful, in a secondary sense, since we experience *ānanda* at their sight. Those who identify Beauty with these external factors and seek it as an attribute forget that while these are perceptible by the senses, Beauty is disclosed only to the 'inward eye.' True Beauty is neither expressible in words nor knowable objectively; it can only be realised.

11. Beauty in Nature, then, as we commonly understand, is anything that brings about a break in the routine life and serves as a point of departure towards the realisation of delight. This is the only condition which it should satisfy. But what is the significance of this break? Generally we lead a life of continuous tension, bent as we are upon securing aims more or less personal in character. In Śaṅkara's words life is characterised by *avidyā-kāma-karma*, i.e., desire and strife, arising out of the ignorance of the ultimate truth. When we are not actively engaged we may feel this tension relaxed; but that feeling of the relaxation is deceptive for even then self-interest persists as may be within the experience of us all. Delight means the transcending of even this inner strain. The absence of desire is the determining condition of pleasure; and its presence, that of pain. The absence of desire

may be due to any cause whatever—to a particular desire having been gratified or to there being, for the time, nothing to desire. The chief thing is that the selfish attitude of the mind—the 'egocentric predicament'—must be transcended at least temporarily, and a point of detachment has to be reached before we can enjoy happiness. Joy or bliss is the intrinsic nature of the self according to the Vedānta, that being the significance of describing the ultimate reality as *ānanda*. The break in the routine life restores this character to the self. If its intrinsic nature is not always manifest, it is because desire veils it. When this veil is stripped off, no matter how, the real nature of *ātman* asserts itself and we feel the happiness which is all our own. In the case of a *Jñanin* the true source of this delight is known; but even when such enlightenment is lacking we may experience similar delight. We may enjoy while yet we do not know. To use Śamkara's words again, the ever-recurring series of *kāma* and *karman* or interest and activity constitutes life. The elimination of *Kāma* and *Karman* while their cause *avidyā* continues in a latent form, marks the aesthetic attitude; the dismissal of *avidyā* even in this latent form marks the saintly attitude. Thus the artistic attitude is one of disinterested contemplation but not of true enlightenment while the attitude of the saint is one of true enlightenment and disinterestedness but not necessarily of passivity. The two attitudes thus resemble each other in one important respect, viz., unselfishness.

12. And now as regards the Vedantic theory of *Rasa*. The immediate aim of art, as already indicated, being pure delight, the theory of *Rasa* in the Vedānta will be known if we ascertain the conditions that determine a pleasurable attitude of the mind. The

overcoming of desire is the indispensable condition of pleasure. The artist has therefore to induce an attitude of detachment and he can easily do it by means of the ideal creations of his art. Being products of fancy they cannot awaken desire and when attention is once concentrated upon them, the ordinary state of tension caused by selfish desires is relaxed and joy ensues as a matter of course. The various devices of art such as rhythm, symmetry, etc., are intended to help this concentration and successfully maintain it. They also serve another important purpose, *viz.*, securing unity to the subject portrayed. We have seen that the knower who enjoys perfect beatitude realises unity in Nature's diversity. Similarly in artistic perception also, which is followed by pure delight, there is a realisation of unity in variety. But while in the one case what is realised is the truth of Nature, it is in the other, the truth of Art. The latter, no doubt, is a lower truth; but there is yet a close resemblance between the two attitudes ; and we may well compare the person appreciating art to a *Jivanmukta*. He does indeed get a foretaste of *mokṣa* then ; but it is not *mokṣa* in fact because it is transient, not being based upon perfect knowledge.

13. To turn to the Sāṃkhya: The essential features of this system are its dualism and its realism. It starts with two Absolutes which are altogether disparate—*Prakṛti* and *Puruṣa*. The former splits up on the one hand into the entire psychic apparatus, with *buddhi* as its main factor ; and, on the other, into the physical world constituted out of the five elements. The *Puruṣa* or self is awareness, pure and simple. It stands at one extreme while at the other is the objective world. The whole of the mental apparatus is designed

to bring about a mediation between them. How *buddhi*, itself a product of Prakṛti, can serve as a connecting link between them—how a physical stimulus is converted into a psychical experience,—is a question which we need not stop to discuss. Our concern is not primarily with Sāṃkhya psychology or metaphysics but only with its conception of art. It is enough for our purpose if we remember that by such mediation *buddhi* enables the *Puruṣa* to realise either of the two ideals of life—*bhoga* and *upavarga*—that is, to experience pleasure and pain or to attain spiritual aloofness through right knowledge.

14. It is also necessary to make a brief reference here to the theory of the three *gunas*. The conception of *gunas* is as difficult to understand as it is essential to the system. Of the large number of effects¹⁶ that can be traced to these *gunas*, *sukha*, *dukkha* and *moha*, which are respectively the result of *sattva*, *rajas* and *tamas*, are the most important; and it is possible that the Sāṃkhya system is less concerned with the intrinsic nature of things than with their meaning for us. It seems to aim primarily at estimating the value¹⁷ of things as means of pleasure and pain and may therefore be described as a philosophy of valuation. Two applications of the doctrine of *gunas*, we have to notice in particular here (i) Everything whether it belongs to the outer physical world or to the inner psychic apparatus is made up of these three factors. But some are predominantly *sattvic* others predominantly *rajasic* or *tamasic*. The

¹⁶ Vide quotation from *Pañcaśikha* in *Sāṃkhya-Pravacana-Bhāṣya*, i, 127.

¹⁷ Since no value has any meaning apart from consciousness, we probably have here an explanation for the persistent effort of certain Orientalists to describe the Sāṃkhya philosophy as idealistic.

buddhi is intrinsically *sattvic* in this sense.¹⁸ We must, however, remember that each individual *buddhi* has in it, from the beginning, *vāsanās* or acquired impulses which may modify its intrinsic *sattvic* character and transform it into a predominantly *rajasic* or *tamasic* entity. (ii) The feeling of pain or pleasure which we experience arises from the inter-action of the two spheres of *prakṛtic* development—the *buddhi* on the one hand and the objective world on the other, the *Puruṣa* standing by, only as an onlooker. Though the *buddhi* owing to its intrinsic *sattvic* character should give rise only to pleasure, the play of its acquired impulses coupled with the character of the particular physical object acting upon it may reverse this result. The same thing may therefore affect different persons differently. That causes pleasure to one may cause pain to another, and what one regards as beautiful, another may regard as ugly ; everything that is perceived comes to be viewed through the distracting medium of individual purpose, and we ordinarily live in a secondary world, ignoring the intrinsic nature of things and setting a conventional value upon them according to our individual bias.

15. Now according to the Sāṃkhya, the basic cause of this predicament is to be traced to a mistaken identification of the *buddhi* with the *Puruṣa*. The mistake cannot be avoided until the *Puruṣa* dissociates himself from *buddhi* altogether, but, according to the Sāṃkhya, the question of neither pleasure nor pain arises then. So far as the ordinary empirical state is concerned,

18 What is meant is that *buddhi* when purged of all its egoistic impulses, as in the case of a *jīvanmukta*, is *sattvic*.

Compare *Tattvakaumudī* on st. 65 ; *Māṇiprabhā* on *Yoga-sūtras* I, 49, and *Sāṃkhya-pravacana-bhāṣya* ii, 15.

individual purpose or selfish desire is ineradicable and life becomes a condition of pain mixed with uncertain pleasure. What is pleasant to one may be unpleasant to another ; or even to the same person at a different time. He on the other hand who acquires true knowledge and realises the intrinsic disparateness of *Prakṛti* and *Puruṣa* transcends the sphere of pain as well as of pleasure. Such a man is a Jivanmukta. He sees things not as related to him but as related among themselves, that is, as they are absolutely. Everything impresses him in the same way and nothing excites his love or hatred so that he is able to maintain complete composure of mind, and be, as *Vijnāna-Bhikṣu* says, serene like a mountain-tarn.¹⁹

16. But such absolute detachment is beyond the reach of ordinary man ; for he cannot transcend his *buddhi*. He cannot therefore grow impersonal even for a while. But we should not therefore consider that the average man cannot escape from pain at all : for although he cannot transcend his *buddhi*, he can, by resorting to art, find a temporary release from the natural world, the second of the two factors contributing to the misery of ordinary existence, Pleasure untainted by sorrow does not exist in the real world and has therefore to be sought outside it. The world of art is no doubt like nature, but being idealised it does not evoke our egoistic impulses. There we have a distinct class of things altogether, which are not made up of the three *guṇas*. They cannot, give rise to either pleasure or pain. The mind is thus enabled to assume a well-poised attitude of which the automatic result is a feeling of pleasure. The artist's function is thus to restore equanimity to

the mind by leading us away from the common world and offering us another in exchange.

17. I have stated that in not a few systems of philosophy, there was a deliberate application of fundamental principles to the interpretation of *Rasa*. The distinctive doctrines of more than one system are found mentioned in Sanskrit works on Poetics.²⁰ As an illustration of them, I shall take up the theory of *Rasa* associated with the name of *Bhaṭṭanāyaka* and show how it is identical with the Sāṃkhya theory as briefly sketched above.²¹ *Bhaṭṭanāyaka* was a reputed *alāmkārika* and wrote a work known as *Hṛdaya-darpaṇa* which, I believe, has not been discovered yet. But references to it are plentiful in *alāmkāra* works, especially in *Abhinavagupta*'s commentary on the *Dhvanyāloka*. *Bhaṭṭanāyaka* does not seem to have been much older than *Abhinavagupta* himself. The following is a *resume* of the theory as given in the *Kāvyaaprakāśa* :—

न ताटस्थ्येन नात्मगतत्वेन रसः प्रतीयते नोत्पद्यते नाभिव्यज्यते अपि तु काव्ये
नात्मे चाभिधातो द्वितीयेन विभावादिसाधारणीकरणात्मना भावकत्वव्यापरेण भाव्यमानः
स्थायी सत्त्वोद्देकप्रकाशानन्दमयसांवेद्विश्रान्तिसतत्त्वेन भोगेन भुज्यते॥ (iv)

18. If we leave out the references to the other views from which the present theory differs, there are three points worthy of note here :—

(i) The first refers to the nature of the objects contemplated in art. They have no reference to anybody in particular. In life everything is consciously or unconsciously related to the individual perceiver (*ātman*) or to some one else (*taṭastha*) ; but the creations of art are wholly impersonal. It is not

²⁰ The commentary on *Alāmkāra-Sarvasva* refers to as many as a dozen theories. (Vide P. 9.)

²¹ The *Kāvya-pradīpa* identifies this theory as the one corresponding to the Sāṃkhya.

given to the ordinary man to transcend personal relations; art by its impersonalised forms affords the best means for a temporary escape from the ills of life arising from such relations.

(ii) The next point refers to three stages in the appreciation of poetry which gradually lead up to aesthetic experience. The first of them is the apprehension of the meaning of the words of a poem; the second the finding through them of generalised conceptions unrelated to any one in particular and lastly the actual experience of delight. This statement brings out clearly the characteristic of the Sāṃkhya theory that aesthetic delight is the result of contemplating the imaginative and therefore impersonal creations of the poet. In the passage quoted above these three states are represented as *vyāpāras* or processes ascribable to a work of art. The first of them is *abhidhā* by means of which the words constituting a poem convey their ordinary meaning. The second is *bhāvanā*.²² It is the process of impersonalising by virtue of which the accessories of the emotion portrayed such as the *vibhāvas* become generalised (*sādharaṇikṛta*) thereby gaining a power of equal appeal to all. The words and their literal meanings are not therefore to be regarded as important in themselves but only as pointing to these generalised ideas. The third or *bhogikarana* is that by virtue of which we are enabled to derive pure pleasure—bhoga—from these idealised creations of the artist. The purpose of evolution in

²² The word *bhāvanā* reminds one of *Mimāṃsa* and it is possible that *Bhāṭṭāṇyaka* was indebted to that system of philosophy for this conception. He was, we know from *Abhinavagupta*, a *Mimāṃsaka*. In one of his many unkind remarks against *Bhāṭṭāṇyaka*, *Abhinavagupta* suggests this. Cf. D. A. p. 63.

the Sāṃkhya is *bhoga* and *apavarga* and the use of this word *bhoga* in this passage constitutes a link connecting the present theory with the Sāṃkhya. What is implied by the use of this word here is that the artistic attitude in spite of its being the source of unalloyed pleasure is more akin to the empirical than to the saintly attitude. Of these three *vyāpāras* the first is recognised by all. But it appears strange that the remaining two should be ascribed to a work of art. If however we remember that this theory is based on the Sāṃkhya we see that the statement is not altogether inappropriate. The *Puruṣa* according to the Sāṃkhya conception is absolutely passive so that all activity must be of *Prakṛti*. *Prakṛti* not only creates everything but also brings about *Puruṣa*'s experience of pleasure and pain through them, by means of its own agency. Thus *Prakṛti* discharges two functions: (a) that of evolving the things through which pleasure or pain may be derived, and (b) that of enabling *Puruṣa* to experience such pleasure and pain. These two steps may be seen in art also, if we distinguish the apprehension of idealised forms from the aesthetic enjoyment derivable from them. There is no doubt a touch of personification in the manner of its statement by *Bhaṭṭācārya*: but that is probably to be attributed to a desire to maintain the parallelism with Sāṃkhya metaphysics.

(iii) The third point refers to the nature of the aesthetic attitude itself. This attitude is one of *Samvit*, i.e., contemplation dissociated from all practical interest as is shown by *visrānti*—‘composure’. Thus the artistic attitude differs from the natural as well as the spiritual attitude; for while the former is not always pleasurable and the latter neither pleasurable

nor painful art produces a condition of pure pleasure. We have here the expression *sattvodreka* which is important inasmuch as it contains another indication of the theory being based upon Sāṃkhya philosophy.

19. To sum up the essential differences between the Vedānta and Sāṃkhya aesthetics. According to pessimistic Sāṃkhya, Nature is not wholly beautiful but has in it phases of beauty as well as of ugliness. It does not indeed say the objects in Nature do not give delight at all. What it means is that there is nothing in Nature which at all times is pleasurable to all. For pure unalloyed pleasure we must therefore look elsewhere than in the real world. According to optimistic Vedānta on the other hand every thing is beautiful and there is nothing in the universe to mar its inward harmony. This is indeed the first corollary of the *ātman-doctrine*; and the saint is the greatest artist, for everything delights him. Although we may not possess the saint's knowledge that every thing is *ātman*, we can occasionally derive aesthetic enjoyment from Nature. But ordinarily we are too dull to perceive the beauty of the universe. The artist who is endowed with an eye for the beautiful derives pleasure from Nature where we cannot and through the expression which he spontaneously gives to his feeling, he opens our eyes to what we miss. In a sense this art is nature herself presented in such a manner that it appeals to us. The aim of art according to both the systems is to induce a mood of detachment. But according to idealistic Vedānta the artistic attitude is characterised by a forgetting, though temporary, of our individuality ; while according to realistic Sāṃkhya, it is due to an escape from the natural world. According to the former, art

serves as a pathway to Reality ; but according to the latter, it is so to speak a 'deflection' from Reality . The one reveals the best in Nature, while the other fashions something better than Nature.

20. I must in conclusion say a word in regard to my selecting a subject which may appear to some as rather out of the way. Research has till now been largely confined to linguistic, historical and similar aspects of oriental learning ; but there are still other aspects of it which cannot be regarded as either less instructive or less interesting. It appears necessary in the future not only to carry research further in the departments already worked, but also to widen considerably the sphere of research itself. What I have attempted in this paper does not profess to be more than a first and a very imperfect sketch of the subject I have selected ; but I trust it is sufficient to indicate what vast fields of ancient Indian learning lie unexplored.

TRIVIDHAM ANUMĀNAM
OR
A STUDY IN NYĀYASŪTRA I. 1. 5.

By A. B. DHRUVA.

The Sūtra which we propose to study runs thus :—

अथ तत्पूर्वकं त्रिविधमनुमानं पूर्ववत् शेषवत् सामान्यतोदृष्टं च ।

I. i-5.

Leaving aside the minor uncertainties about the meaning of *tatpūrvakam*, viz., whether *tat* means the several pramāṇas of Sūtra I i. 3, or only *pratyakṣa* of Sūtra I. i. 4 and this, again, one or more,* we pass on to the important question, What are the kinds of Inference —the TRIVIDHAM ANUMĀNAM—referred to in the particular sūtra ?

1. According to Vātsyāyana, who as the Bhāṣyakāra of the Nyāyasūtras is expected to be our best guide in this matter, the three kinds of Inference are no doubt (1) Pūrvavat (2) Śeṣavat and (3) Sāmānyatodṛṣṭa; but he is not sure about the meanings of these terms, of which he gives two alternative explanations together with their appropriate illustrations. These are :

(i). (a) Pūrvavat or Inference from the Antecedent to the Consequent, i.e., from Cause to Effect ; e.g. from thickening clouds to an impending shower of rain ;

(b) Śeṣavat or Inference from the Consequent to the Antecedent, i. e., from Effect to Cause e. g. from an unusually full and fast current of a river to a heavy shower of rain in the uplands ;

(c) Sāmānyatodṛṣṭa or Inference from the Coordinate i. e., from one case to another falling under the same class but not connected with it by

*N. Vart.

the relation of cause and effect. For example, we know that a person, say Devadatta, who is seen at two different places in succession has moved from one place to the other ; similarly, the sun which is observed at two different places in the sky in succession must have moved from one place to the other. Here, Devadatta and the sun are not related as cause and effect ; but they are both cases of material bodies, and our inference here is from one co-ordinate to another.

(ii) *Or*, again, the same three terms in question may mean the following, says Vātsyāyana :

(a) Pūrvavat i.e., Inference from former experience (sensuous perception) ; as, for example, we infer fire from smoke, on the basis of our former experience of smoke as accompanied by fire ;

(b) Śeśavat i. e., Inference by Exclusion ; as, for example, we can exclude Śabda from the categories of Sāmānya, Viśeṣa and Samavāya on the ground of its being a non-eternal reality, and next show how for certain reasons it cannot be referred to the categories of Dravya and Karmāṇa, thus leaving Guṇa alone in the field as the only remaining category to which Śabda can belong.

(c) Sāmānyatodṛṣṭa i. e., Inference of something which is supersensible from something which is sensible, on the ground of the latter being found to be possessed of a nature which it shares in common with certain other things. Thus, for example, we infer the existence of Ātman, which is a supersensible reality, from certain sensible realities such as icchā (desire) etc., in consequence of their possessing the common nature of guṇas (qualities) which require a substance to support them.

The two sets of explanations, together with their illustrations, are so radically different from each other that the writer evidently seems to be groping in the dark for the real meaning of the Sūtra.

2. Our next guide along this much-trodden but little-understood path is Uddyotakara, the Nyāya-Vārtikakāra. In him we alight upon a world of still greater uncertainty about the meaning of the Sūtra. His *alternative* explanations are as follows :—

(i) The three kinds of Inference may be what are known as Anvayavyatireki, Anvayi and Vyatireki, the word trividham in the Sūtra referring not to the classification contained in the Sūtra itself viz. Pūrvavat, Śeśavat, and Sāmānyatodṛṣṭa but to a classification which is supposed to be *understood*, and of which the reader is expected to take what lawyers call ‘judicial notice.’

(ii) The unsatisfactory character of this mode of interpreting the Sūtra is obvious, and so the Vārtikakāra proposes another interpretation in which the word trividham refers to Pūrvavat, Śeśavat and Sāmānyatodṛṣṭa i.e. to the classification contained in the Sūtra itself. But here, again, he does not take the terms Pūrvavat etc. as signifying the three *kinds* of inference but as laying down the *conditions* of a valid Inference. Thus :—

(a) Pūrvavat means that the hetu should be invariably accompanied by its antecedent (Pūrva) viz., the Sādhya ; (b) Śeśavat means that the hetu must have been observed as invariably accompanied by the Sādhya in *other* (śesa) cases ; and (c) Sāmānyatodṛṣṭa, which should be broken up into sāmānyatāḥ and adṛṣṭa, means that the hetu is *not common* to Sādhya and

Sādhyābhāva, that is to say, it should not be what is called Sādhāraṇa hetvābhāsa.

To these three two more conditions are added by a *tour de force* which consists in extracting them from 'ca' at the end of the Sūtra. These are;

(d) that the Inference should not be opposed to Pratyakṣa and (e) that it should not be opposed to Āgama. All the five conditions will have to be fulfilled in the case of a good anvayavyatireki, and four in each of the other two, viz., Kevalānvayi and Kevalavyatireki.

(iii). Lastly, the Vārtikakāra accepts the meanings of Pūrvavat and Śeṣavat as given by the Bhāṣyakāra in his first alternative explanation, and adds remarks to show how the words Pūrvavat and Śeṣavat may mean cause and effect respectively, and how the illustrations in the Bhāṣya may be expressed in the set form of a Naiyāyika Anumāna. But in regard to Sāmānyatodṛṣṭa not only does he give a different illustration but takes the liberty of criticising the one given in the Bhāṣya. Thus, Sāmānyatodṛṣṭa in his opinion, is that general case in which the relation between the hetu and the sādhyā is not causal, and yet the inference is valid. For example, we may infer the existence of water at a particular spot from the appearance of cranes thereabout. The illustration given in the Bhāṣya that of the motion of the sun as inferred from its appearance at two different places at two different times is rejected by the Vārtikakāra on the ground that the sun after all is not found to be actually travelling, and all that we see is that the solar orb was then there and is now here. In the absence of actual observation of motion, on the simple ground of likeness between the sun and Devadatta, we cannot infer, he argues, that the sun is moving.

3. Coming next to Vācaspatimiśra, the famous writer of the commentary called *Nyāyatātparyatikā* on Uddyotakara's *Nyāyavārtika* we notice a very curious jugglery played with the words of the Sūtra. Thus, in connection with Explanation 1 of the Vārtika, he says :

एतदुक्तं भवति । अवाधितविषयमसत्प्रतिपक्षं पूर्ववदिति ध्रुवं कृत्वा शेषवदित्येका विद्या, सामान्यतोदृष्टिमिति द्वितीया, शेषवत्सामान्यतोदृष्टिमिति तृतीया । तदेवं त्रिविधमनुमानम् ।

that is to say, the conditions, (a) (d) and (e) of the Vārtikakāra's Explanation 1 are essential to all valid inferences ; while (a) Śeṣavat (= sapakṣe satvam) is essential to one, viz., kevalānvayi (b) Sāmānyatodṛṣṭa (= Vipakṣādvyaśvṛtti) to the second viz. kevalavyatireki, and (c) Śeṣavatsāmānyatodṛṣṭa to the third viz., anvayavyatireki.

In commenting upon the Vārtikakāra's rejection of the third illustration given under the Bhāsyakāra's Explanation 1, he points out two reasons : first, that the illustration is obscure, and secondly, that it does not essentially differ from the illustration wherein we infer a Cause from its Effect ; as, for example, the motion of the sun may be inferred as a cause from the sun occupying a new point in the sky, which is its effect.

Next, stepping out of the circle of the Nyāyadarśana, we notice that the Trividha Anumāna of Gotama has found favour with other schools of Indian Philosophy also. Thus,

4. Īśvarakṛṣṇa, the author of the *Sāṃkhyakārikā*, takes the foregoing division of Anumāna as well-known. Without enumerating the three kinds, and just remarking that Anumāna is said to be of three kinds (trividhamanumānamākhyātām S. T. K.5,) he goes on to

state that the supersensible principles of the Sāṃkhya system can be proved by Sāmānyatodṛṣṭa anumāna.

5. Gauḍapāda in his *Bhāṣya* on the *Kārikās* supplies the names of the other two kinds of Anumāna, and explains and illustrates the varieties as follows :—

पूर्वमस्यास्तीति पूर्ववत् यथा मेघोन्नत्या वृष्टिं साधयति पूर्वदृष्टत्वात् । शेषवत्
यथा समुद्रोदकं जलपटलं लवणमासाद्य शेषस्याप्यस्ति लवणभाव इति ।
सामान्यतोदृष्टं देशान्तरादेशान्तरं प्राप्तं दृष्टं गतिमच्चन्द्रतारकं चैत्रवत्
यथा चैत्रनामानं देशान्तरादेशान्तरं प्राप्तमवलोक्य गतिमानयमिति
तद्वच्चन्द्रतारकमिति । तथा पुष्पिताम्रदर्शनादन्यत्र पुष्पिता आम्रा इति
सामान्यतोदृष्टेन साधयति एतत् सामान्यतोदृष्टम् ।

6. In the *Māṭharavṛtti*, which is reported to be the basis of Gauḍapāda's *Bhāṣya* on the *Sāṃkhya Kārikā*, we have the illustrations of both Pūrvavat and Śeṣavat brought under the single head of Pūrvavat, which, is explained as पूर्वमेयं (विधा) दृष्टेति पूर्ववत् i.e. Inference from former experience; while, Śeṣavat is explained and illustrated as an argument from a part to the rest, e.g. from the brackish taste of a drop of sea-water to that of the rest of the sea-water (समुद्रोदकविन्दुं प्राप्य शेषस्य लवणभावोऽनुमीयत इति शेषवत्); and Sāmānyatodṛṣṭa is described as an argument founded on a general principle which must apply to all the individuals of a class, to those as well as to these ; e.g., 'as these mango-trees have flowered, so must have those' (सामान्यतोदृष्टं पुष्पिताम्रदर्शनादन्यत्र पुष्पिता आम्रा इति)

In addition to the above explanation of 'Trividha Anumāna,' Māṭhara has some exceedingly valuable information to impart while commenting upon the word Trividham. Trividham besides meaning 'of three kinds' may be also, he says, trisādhanam, tryavayavam. Here

I For the use of the *Māṭharavṛtti*, which is still in manuscript, I am indebted to Dr. S. K. Belvalkar of the Deccan College, Poona.

Māthara duly notes that according to some, it may be pancāvayavam i.e. five-membered and the five members are enumerated as follows :—

प्रतिज्ञा, अपदेश, निर्दर्शन, अनुसंधान and प्रत्याम्नाय² —

corresponding to the Nāiyayika's प्रतिज्ञा, हेतु, उदाहरण, उपनय and निगमन respectively. In explaining, tryavayavam Māthara states that the three avayavas are pakṣa, hetu and drṣṭānta. Obviously, these are names not of terms but of propositions. Thus, Pakṣa means pratijñā or Enunciation of the proposition; Hetu is the statement of Reason ; and Drṣṭānta is Udāharanā i.e. statement of invariable association supported by Example. The author then proceeds to add that there are nine types of Pakṣābhāsa i.e. false pakṣa or pratijñā, fourteen of Hetvābhāsa i.e. false hetu, and ten of Nidarsanābhāsa i.e. false nidarsana or drṣṭānta. Thus, a good anumāna, which contains the three avayavas viz. pakṣa, hetu and drṣṭānta should be free from thirty-three ābhāsas i.e. false appearances or fallacies.³ Again, the author observes in passing that a hetu should be trirūpa or three-formed i.e. it should satisfy three conditions, viz ; पक्षधर्मत्वम्, सपक्षे सत्त्वम्, विपक्षे चासत्त्वम्.

7. The *Pūrvamīmāṃsā Bhāṣya* of Śabaravāmin is another great work outside the school of Nyāya which notices this subject. It defines Anumāna as a movement of thought from a part which is present before the senses to another part which is not so, in virtue of their being known to be (invariably) associated ; and it divides it into two kinds, pratyakṣatodrṣṭasambandha and sāmānyatodrṣṭasambandha, the former being illustrated

² Compare Praśastapāda Bhāṣya on Vaiśeṣika Sūtras.

³ Compare Nyāyapraveṣa and the commentaries thereon.
[F. O. C. II. 33]

by the case of smoke and fire whose invariable association is known by perception, and the latter by that of the sun's motion and its occupation of a new point in the sky, i.e. a sādhya and a hetu, whose connection is not apprehended by the senses but is only known in the abstract. Thus, the sāmānyatodṛṣṭa of Śabara is the same as that of the *Sāṃkhya-kārikā* and the *Nyāya-abhāṣya* Expl. 1, while the Pūrvavat and Śeśavat of the latter are rolled up into a single pratyakṣatodṛṣṭa.

8. Lastly, we have a very detailed and interesting exposition of the 'Trividham Anumānam' in *Anuyogadvāra* which is a canonical work of the Śvetāmbara Jainas. Here, Anumāna is divided into (1) पुन्वव, (2) सेसव, and (3) दिद्वासाहम्मव i.e. the same types as those mentioned in Gotama's Sūtra, and no doubt borrowed from it, with a careless, or, it may be, careful and deliberate addition of 'vat' (va) at the end of the last term, thus making it uniform with the preceding two. The different kinds are illustrated, and in some cases also subdivided as follows :

(1) Puvvava=as before i.e. Inference from marks *formerly* observed. Thus, a mother recognises her child from such physical marks as she has observed before, e.g. a mole or a scar. The illustration in the text is, moreover, supported by a quotation⁴ which goes to show that there had been earlier writers, probably Jains, who had dealt with the subject.

(2) Sesava=Inference from the *other* i.e. of one member of a pair of correlates from the other. This is of five kinds :

(a) Kajjenam (Kāryeṇa) i.e. Inference of a cause from its effect. Thus, says the writer, we infer a

4 माया पुतं जहा नदं जुवाणं पुणरागयं ।

काई पचाभिजाणेजा त्रुप्पलिंगेण केणइ ॥

conch from the sound of its blowing, a drum from its beating, a bull from bellowing, a peacock from its peculiar note, a horse from his neighing, a yak from her gurgling, and a chariot from the tinkling of its bells.

(b) Kāraṇeṇam—Inference of an effect from its cause. For example, threads are a cause of a piece of cloth and not vice versa, grass fibres are a cause of a mat and not vice versa, a ball of clay is a cause of a jar and not vice versa. The exact point of these illustrations is somewhat obscure⁵, and the commentator, in view of the obscurity, supplies other illustrations of this type which means that given all the causes, the effect must follow e.g. from a particular look of the clouds one may infer a sure rainfall, from the rise of the moon its necessary effect viz. a tide in the sea, from the rise of the sun its necessary effect viz. the blooming of day-lotuses, and so on.

(c) Guṇeṇam—Inference of Substance from its Attribute. Thus, we infer gold from its test, a flower from its smell, salt from its taste, wine from its flavour, cloth from its feel etc.

(d) Avayavēṇam—i.e. Inference of the Whole from its Part. Thus, e.g. we infer a buffallo from his horn, a cock from its crest, an elephant from his trunk, a boar from his tusk, a peacock from its feathers, a horse from his hoof, a tiger from his paw, a yak from her hair etc.

(e) Āsayeṇam⁶—i.e. Inference as regards the Abode from that which abides therein, e. g. of fire from

5 It is probably this: When we infer that a piece of cloth will be woven out of certain threads, we go from Cause to Effect, and not from Effect to Cause, and yet it is a sound inference. Hence the second variety requires to be recognised quite as much as the first whose claim is obvious.

6 This is explained by the commentator as आश्रयतीत्याश्रयः (तेन) and therefore as practically equivalent to आश्रितेन.

smoke, or water from cranes, a shower of rain from turbid waters, a gentleman from his character and general demeanour.

(3) *diṭṭhasāhammava*=Inference from *similar* cases
This is of two kinds ; (a) *sāmannadiṭṭham* and (b)
visesadiṭṭham.

(a) *Sāmannadiṭṭham* is Inference from that which is observed as a point in common to all the individuals of a group, e.g. 'as one man, so many ; as many, so one.'

(b) *Visesadiṭṭham* is Inference from that which is observed as a distinguishing trait of a certain individual amidst a group, e.g. when one recognises a friend from amongst a number of men in a crowd.

The treatment of the subject, already too much detailed, does not end here. *Anumāna* is further divided according as it refers to time past, present or future, and these divisions are illustrated at great length.

II.

Such are in brief, the expositions of the "Trividham Anumānam" in and outside the school of the *Nyāyadarśana*. While there is practically complete unanimity as regards the names of the three types of *Anumāna*, there are serious differences in respect of what the names are intended to convey. Thus: (1) *Pūrvavat* may mean Inference from a cause, or simply Inference from former experience, or even recognition from a formerly observed mark ;

(2) *Śeṣavat* may mean an Inference from Effect, or Inference of one member of a pair of Correlates

from the other, or Inference from a Part, or a totally different type of Inference, viz. Inference by Exclusion.

(3) *Sāmānyatodṛṣṭa* may mean Inference based on mere likeness or uniformity of experience, without Causation at its back, or may mean Inference of supersensible truths through abstract generalities.

The one impression which these differences *collectively* leave upon the mind is that the expositors, whether right or wrong, are all more or less groping in the dark about the original meaning of the Sūtra, from which they seem to be separated by a considerable interval of time. The time appears to have been long enough to make such diverse schools of thinkers as the Naiyāyikas, the Sāṃkhyas, the Mīmāṃsakas, and even the Jainas join hands in accepting verbatim the ‘three kinds of Anumāna’ mentioned in Gotama’s Sūtra. They have no doubt some sort of a broken tradition regarding the original meaning of the terms Pūrvavat etc., as would appear from the same explanations, and what is more remarkable, the same illustrations recurring in several of the works. But the tradition is sometimes lost or obscured by the writers’ own⁷ ideas of the general principles of Logic crowding thickly upon their brain even while they are actually dealing with a much narrower subject viz. the three kinds of Anumāna.

I would go further and add that not only is the earliest of the works cited above—which I believe to be Vātsyāyana’s *Bhāṣya*—far removed in time from Gotama, but even Gotama himself has borrowed the terminology of the Sūtra (I. i. 5) from older “Naiyāyikas,” who, I submit, were the ancient Mīmāṃsakas. Vātsyāyana,

⁷ Vide Uddyotakara’s *Nyāyavārtika*.

when he says that Pūrvavat and Śeṣavat may mean, respectively, Inference from Cause and Inference from Effect, is doubtless in possession of the real meanings of the terms as used in the Sūtra. But he does not seem to know that they were borrowed from the vocabulary of Mīmāṃsā where the words Pūrva, and Śeṣa, are of frequent occurrence. Thus, we read in the Pūrva Mīmāṃsā Sūtras :

विधिर्वा स्यादपूर्वत्वात् वादमात्रं ह्यनर्थकम् (I.ii, 19). न पूर्वत्वात् (I. ii, 22),
 विधिशानर्थकः क्वचित्स्मात् स्तुतिः प्रतीयेत तत्सामान्यादितरेषु तथात्वम् (I. ii, 23),
 अर्थस्तु विधिशेषत्वात् यथा लोके (I. ii 29) शेषः परार्थत्वात् (III. i. 2),
 द्रव्यगुणसंस्कारेषु वादरिः [शेषशब्द इति मेने] (III. i. 3) अर्थाभिधानसामर्थ्यान्मन्त्रेषु
 शेषभावः स्यात् (III ii. 1.) etc.

In the *Mīmāṃsā Sūtras*, Sāmānya, i.e., likeness or participation in a common class, is often made the basis of an argument from parallel instances. Pūrva and Śeṣa i.e. the prior and the remainder, which primarily mean the logically prior and the posterior part of a sentence or paragraph, are sometimes used in connection with *vidhi* and *arthavāda* respectively ; and the two being parts of one organic whole, argument from one to the other becomes easily possible. Śeṣa, which means the remainder, is also subsidiary as opposed to principal or primary, to which the term *pūrva* may be applied. In the sense of subsidiary, the term is sometimes applied to *arthavāda*, and is, moreover, used to denote the relation of a thing to its ultimate end, such as that of *dravya*, *guṇa* and *samskāra* to *kriyā*, or of *karman* to *phala*, or of *phala* to *puruṣartha* or of *puruṣa* to *karma*, and so forth. Now, it is obvious that in *Mīmāṃsā*, an argument from śeṣa would be an argument from the subsidiary to the principal in thought, and so long as *Mīmāṃsā* was merely a science

of the laws of Interpretation, the meaning of Śeṣa would hardly travel beyond the region of thought. But the passage from thought to being, from ratio to cause in the present case, is not difficult, and the necessary in thought could easily become the necessary in being. Thus, the words pūrva and śeṣa which at first stood for certain relations of necessary connection in a group or groups of words, or of things symbolised by them, could well be used for denoting Cause and Effect respectively.

It is very significant that nowhere in the Nyāyadarśana—neither in the Sūtras nor in any later work—the words pūrva and śeṣa bear the sense of Cause and Effect, except in the single Sūtra which we are here discussing. Moreover, if the Naiyāyikas had originally attempted to express the ideas of Cause and Effect by the category of succession they would have employed the words पूर्व or पर, and उत्तर or अपर, and not pūrva and śeṣa, the last word being entirely foreign to their vocabulary. Hence, it is clear that for the terminology of the “Trividha Anumāna” Gotama is indebted to earlier⁸ Mīmāṃsakas, who were not only exegetes

8 That Nyāya was a synonym of Mīmāṃsā was known even to such latter-day writers of Mīmāṃsā as Mādhava and Pārthaśārathi Miśra, who called their works Nyāyamālāvistara and Nyāyaratnākara. Note that the word Nyāya is used in the sense of a general proposition in the R̥g-Veda Prātiśākhya न्यायमिश्रानपवादान् प्रतीयात् (R̥g-Veda Pr. 1 Patala). Besides, in his paragraph on the members of a syllogism, Vātsyāyana remarks that “some Naiyāyikas” (एके नैयायिकाः) hold that a syllogism has ten members, which we should have *prima facie* supposed to be those mentioned in the Niruykti of the Daśavaikālīka Sūtra of the Jainas. But Vātsyāyana mentions the five which the above-mentioned “Naiyāyikas” add to those recognised by Gotama as follows : जिङ्गासा, संशय, शक्यप्राप्ति, प्रयोजन and संशयन्युदास. These additional five members have such a clear Mīmāṃsa ring about them that one cannot help suspecting that the “Eke Naiyāyikaāḥ” of Vātsyāyana are a section of the earlier Mīmāṃsakas.

but also logicians. Thus, for the origin of the Sūtra relating to the Trividha Anumāna we are carried far back into the distant past when the Mīmāṃsakas were the only Naiyāyikas, when the priests held their parṣads, and discussed the questions of Philosophy, Ritual, and Law round the sacrificial altar or on the judicial bench. Like Geometry, Astronomy, Music, and Surgery, Logic too would seem to have been born in the yajñavāṭa, and the Sūtra under notice is a reminder of its ancient origin.

This conclusion about the antiquity of Indian Logic is corroborated by the evidence of Buddhistic Sūtras. These contained not only general references to rationalistic disputants, wranglers and sophists, among Brāhmaṇas and śramaṇas, such as तक्षी, वीर्मसी, वितण्ड, etc. but also to such technical detail of the art of debate as आरोप, निगग्ह, वादप्पमोक्ष, and, further more, they presuppose a fixed form of carrying on a debate so that a man who inverted the recognised order of propositions was taken to task; Thus, पुरे वचनीयं पच्छा अवच पच्छावचनीयं पुरे अवच.

But, be it noted that the question before us is not of the antiquity of Indian Logic in general, but of its particular topic viz. the Triyidha Anumāna, and, therefore, the evidence cited from the Budhistic Sūtras can only raise a general presumption in favour of the latter's antiquity but it cannot place it beyond dispute. For this, we have to rely upon the internal evidence of the terminology of the Sūtra which, as we have seen, points to the age of the early Mīmāṃsaka logicians.

To it I now propose to add some external evidence, which has not hitherto attracted sufficient attention. This evidence is to be found in the Jaina Āgamas. We

have already seen that barring the prākṛtization and a slight attempt at improving upon the last word in the Sūtra by substituting साहम् (साध्य) for सामान्य so as to include both सामान्य and विशेष, the division of Anumāna contained in the Anuyogadvāra is word for word the same as that contained in Gotama's Sūtra. Now, according to the Jaina tradition, the Anuyogadvāra in its present form was composed by Āryarakshita who lived towards the end of the first century A.D. But that does not mean that the work was an original production of Āryarakshita. Āryarakshita and Devardhigani are responsible for the existing redaction of the Jaina Siddhānta, but they are supposed to have only reproduced or rearranged what they already found existing under that title. We have proof of this in the fact that the Bhagavatī Sūtra which is one of the Āngas of the Jaina Scripture settled at the Council of Pāṭaliputra in the beginning of the third century B.C., refers to Anuyogadvāra and several other works, although in their present form they are of a later date. Thus it says : "जहा अणुउगदारे, जहा नन्दी, जही पन्नवणाए" &c. The reference to Anuyogadvāra, moreover, is made in connection with the subject of Anumāna,⁹ thus guaranteeing with almost absolute certainty that the passage relating to Trividha Anumāna in the Anuyoga belongs to the original edition of the work, which as we have seen existed even before the compilation of the Bhagavatī Sūtra in the time of Bhadrabāhu i.e. before the third century B.C. Now let us allow some time between the Bhagavati and the Anuyoga to admit of the former quoting the latter, and then allow still another interval of time required to account for a

9 से किं ते पमाणेर चतु घिहे पंतं पचरते अणुप्राणे उवमे भागमे जहा अणुउगदारे—Bhaga. v. 4.

Jain writer adopting with equanimity the division of Anumāna which was originally formulated by Brāhmaṇas,¹⁰ and we shall have very nearly reached the period of the early Mīmāṃsakas who were our first logicians.

This does not mean that all the Nyāya Sūtras are as old as the one under consideration. We should be careful not to extend the conclusion drawn from the study of a single Sūtra, that relating to the Trividha Anumāna, to the whole of Gotama's work in its present form. But I demur to the view put forward by Dr. S.C. Vidyābhūṣaṇa that the present work of the Nyāya Sūtras should be credited to a writer of the second century A. D., whom Dr. Vidyābhūṣaṇa calls Akṣapāda, as distinguished from Gotama, and also to Vātsyāyana who is supposed to have added certain Sūtras of his own and generally revised the work of his predecessors while writing his Bhāṣya. The distinction made between Gotama and Akṣapāda is contrary to the generally accepted tradition about their identity, and the evidence adduced to prove that Vātsyāyana was later than Nāgārjuna is altogether inconclusive, as I shall show in the sequel. Moreover, I beg to demur still more strongly to another view recently expressed

¹⁰ Later Jain writers show a disinclination to adopt these divisions of Anumāna. They attribute them to Naiyāyikas (Brāhmaṇa logicians) and condemn them in unequivocal language. Thus,

पूर्ववत् शेषवत् सामान्यतोदृष्टमित्यादि । तद्वालप्रलिपितप्रायमित्यवगन्तव्यम्

(Nyāyavivṛti)

एतेन तत्पूर्वकं त्रिविधमनुमानं पूर्ववच्छेषवसामान्यतोदृष्टं च नेयायिकपरिकल्पितमनुमानलक्षणं प्रतिक्षिप्तम् ।

—(Abhayadevasūri's तत्त्वबोधविधायिनी टीका on संमतिरक्तं.)

For the latter I am indebted to Muni Śri Nemi-Vijaya ji of Ahmedabad,

by the learned scholar that the word 'अवयव' is a Sanskrit translation of the Greek "Analytics" and that the whole subject of Syllogistic Reasoning has originated and developed under the influence of Aristotle. Apart from the general lack of historical evidence showing that Indians had heard of Aristotle or any foreign logician, Dr. Vidyābhūṣaṇa's theory would require the very first Sūtra of the Nyāyadarśana which contains the word अवयव to be thrown overboard or placed on the list of 'suspects'; and, further, it would have us believe that one whole branch of western learning was imported into India, and that, too, by many hands and across many centuries without leaving a single philological vestige behind to betray its foreign origin. Such a supposition would be contrary to what we have observed in the history of Indian Mathematics, Astronomy and Medicine, wherein a foreign influence has never failed to be detected under the microscope of Comparative Philology. A closer examination of this question will carry us far beyond the limits of this paper, and should be deferred to a more suitable occasion.

The results of this part of our inquiry may be summed up somewhat as follows :—

1. The first glimmer of the light of Indian Logic belongs to the pre-Buddhistic age of the Parṣads.
2. The early beginnings of a systematic Art of Logic belongs to the latter part of the same age.
3. The Art tends to become a Science in the period of early Buddhism and its contemporary Brāhmaṇism.
4. It has established itself as a Science before 300 B.C.

5. The results of Brāhmaṇical thought in this department, as linked with Theism and Realism, get summed up in the Nyāya-Sūtras of Gotama, as similar work of Jain and Buddhist logicians, carried on of course in harmony with their own religious and philosophical dogmas, is represented in the corresponding fragments of the Jain and Buddhistic literatures.

6. Gotama's Sūtras, not necessarily all their contents, some of which are earlier, belong to the latter half of the Pre-Christian Sūtra period. The work may be dated somewhere about 200 B.C., in the age of the Āhnikas or Daily Lessons, like the Navāhnikas of Patañjali's Vyākaraṇa Mahābhāṣya.

III

So much for the date of Gotama's Nyāya Sūtra I. i. 5 which we considered in the light of the *general* uncertainty which prevails among commentators regarding its meaning. Next let us turn our thought to points which arise from a comparison of some of the commentaries *inter se*. And here I would beg my readers to draw conclusions from the collected data unhesitatingly, without any pre-conceived and rigid notions in regard to the dates of particular authors which may thereby be affected.

1. Now, if we compare Vātsyāyana's account of the Trividha Anumāna with that given in the Anuyogadvāra, we cannot but be impressed by the great mass of details which the latter possesses as distinguished from the former.

2. In the same way, if we compare Māthara's exposition of the subject with Vātsyāyana's, we cannot help concluding that Māthara represents a step forward

in the history of Indian Logic. This may appear "adharottaram" to those who are committed to the theory of Vātsyāyana's belonging to the fifth century A. D., *i.e.*, after Nāgārjuna, and, perhaps, after Asaṅga also. But the logical doctrines known to Māṭhara are so clearly in advance of Vātsyāyana's knowledge of the subject, that this very fact calls for a re-adjustment of the date of Vātsyāyana as determined by Dr. Vidyābhūṣaṇa¹¹. On comparing Vātsyāyana's knowledge of Anumāna with that of Māṭhara we notice that Vātsyāyana is acquainted with only two types of Anumāna : the ten-membered and the five-membered. Had he been aware of the three-membered, he would have mentioned it along with the ten-membered to which he has devoted a special paragraph in his Bhāṣya. Besides, he explains "Trividha" as "of three kinds", and also as "Tri-sādhana" and "Tri-avayava". Here in addition to declaring the three conditions of a good hetu Māṭhara refers, as we have already seen *supra*, to 33 kinds of fallacies, 9 of पक्ष, 14 of देतु and 10 of निदर्शन or व्याप्ति—an amount of logical wealth far beyond the dream of Vātsyāyana. Moreover, from the manner in which they are introduced, without explanation or illustration, it would seem that they were all very well known in his days, and a fair amount of time may therefore be supposed to have passed before their general recognition became possible.

...3. Next, as between Māṭhara-Vṛtti and Anuyoga-gadvāra, Māṭhara-Vṛtti is undoubtedly earlier, it being referred to as an example of 'नोथागम भावथृत' in Anuyoga.

¹¹ The passage is repeated in the Nandi sūtra with slight variations, *i.e.*, it introduces भागवं and पायंजली and splits up मादर पुराण वागरण into मादर पुराण वागरणे etc.

Bearing these chronological relations in mind, viz., first Vātsyāyana, then Māthara (who may be supposed to be separated from him by at least a century), and last Anuyogadvāra, let us proceed to settle their respective dates. The passage in the Anuyogadvāra which refers to Māthara, *inter alia*, throws a flood of light on the whole problem. It runs thus :—

तं जहा भारहं रामायणं भीमासुरक्खं कोङ्गिष्ठयं धोडयमुहं कप्पासिअं नागसुहुम
कणगसत्तरी वैशेषिअं बुद्धसासणं काविलं वैषेषिअं लोगायंतं (यं) सट्टितं
माढर पुराण वागरेणं नादगाइं.

The references which particularly interest us in this passage are those made to कणगसत्तरी सट्टितं and माढरं. कणगसत्तरी is evidently सुवर्णसप्तति or हिरण्यसप्तति the “Gold-Seventy”, which together with a commentary was translated into Chinese by Paramārtha between 557 and 568 A. D. Dr. Takakusu identifies the “Gold-Seventy” with the सांख्यकारिका or सप्तति of Īśvarakṛṣṇa, which, moreover, he believes to be the same as ‘Vindhya-vāsa’s revised Sāṃkhyasāstra’. He argues thus: Since Īśvarakṛṣṇa is said to have revised the “Saṣṭitantra,” and Vindya-Vāsa a “Sāṃkhya-Śāstra,” Īśvarakṛṣṇa is to be identified with Vindhya-vāsa; and since Vindhya-vāsa is reported by Paramārtha to have been an older contemporary of Vasubandu, whose teacher, Buddhamitra, he defeated, the Sāṃkhyakārikā, which is the same as Hiranyasaptati, is to be placed a few years before Vasubandu, whom Dr. Takakusu assigns to the last three-quarters of the 5th century A. D. Thus, the date of the Sāṃkhyakārikā or Hiranyasaptati, i. e., of the Kaṇagasattari of our passage, must be fixed at about 450 A. D. according to Dr. Takakusu. But the date of Vasubandhu has been considerably shaken by the researches of N. Peri, and

he is now generally held to have lived between 280 and 360 A. D. Dr. Keith accepts Peri's date of Vasubandhu and, consequently, the period of Īśvarakṛṣṇa and his Sāṃkhyakārikā is according to him thrown back into the 4th century A. D. Further, the author of the 'Saṣṭitantra' which is supposed to be the original of the revised Sāṃkhyasāstra *i.e.* of the Sāṃkhyakārikā or Saptati, he believes to be Vārṣaganya, the teacher of Vindhya-vāsa—a fact which, he says, is borne out by (1) Vācaspatimiśra describing a quotation (गुणानं परमं स्वं etc.) in Vyāsa's Yogabhāṣya as one made from Saṣṭitantra ("षष्ठितन्त्रानुशिष्टः")¹² and elsewhere attributing the same couplet to Vārṣaganya, and (2) to also the Chinese tradition which ascribes to Vindhya-vāsa (Īśvarakṛṣṇa) the rewriting of a work of the 'Rain-host,' *i. e.*, Vṛṣaganya or Vārṣaganya.

Dr. Belvalkar disputes¹³ Dr. Takakusu's identification of Vindhya-vāsa with Īśvarakṛṣṇa, and he regards the latter as a predecessor of both Vindhya-vāsa and his teacher Vārṣaganya, and places him in the 'first or first half of the second century of the Christian era.' For Īśvarakṛṣṇa's priority to Vindhya-vāsa and Vārṣaganya he relies on the negative evidence of the guru-śiṣya-paramparā given in the Māthara-Vṛtti, which makes no mention of the last two writers. He also questions Dr. Takakusu's equation of Po-pó-li (whom a Chinese tradition mentions as a teacher of Īśvarakṛṣṇa) with Varṣa (Vārṣaganya), and suggests that Po-pó-li may be Devala¹⁴ of the aforesaid paramparā. Further, he thinks that Hiranyasaptati was not the same as Sāṃkhya Sapatati or Kārikā but was 'a distinct work,' some kind

¹² "Bhagavān Vārṣaganyah"—Vācaspatimiśra.

¹³ Bhānd. Com. Vol.

¹⁴ Query: Is the Chinese P known to be an equivalent of the Sanskrit D?

of a commentary on Īśvarakṛṣṇa's Sāṃkhya Saptati, written by Vindhavāsa. As to Saṃtantra, he leaves the question of its authorship undecided, but he believes it to be a work 'prior to 150 B. C.' But the young scholar's main contribution to Sanskrit scholarship consists in his having brought to light from the Deccan College Library two MSS. of Māṭhara-Vṛtti, which on comparison he finds to be the original of the Sāṃkhya work which Paramārtha translated into Chinese a few centuries later. Dr. Keith refuses to accept Dr. Belvalkar's view of the Māṭhara Vṛtti being the original of Paramārtha's Chinese translation, and believes that the hypothesis of a 'common source' for both the Māṭhara-Vṛtti and the Chinese translation is not excluded. Besides, he does not think much of Dr. Belvalkar's argument based on the guru-paramparā in the Māṭhara-Vṛtti which contains no mention of Vārṣaganya and Vindhavāsa. Such is the position in regard to the date, and authorship, of Saṃtantra, Hiranyasaptati and Mathara-Vṛtti. It is not possible here to attempt a full discussion of all the points at issue in this controversy, but since they have a close bearing on the dates of Vātsyāyana and Anuyoga, a few remarks may be permitted.

(1) I think Dr. Belvalkar is right in holding that Īśvarakṛṣṇa is not the same as Vindhavāsa. But this, for the simple reason that there is no evidence whatever to prove their identity, except such as is made up by piling conjecture upon conjecture (*see supra*) for which there is absolutely no justification. The guru-paramparā of the Māṭhara-Vṛtti on which Dr. Belvalkar relies is condemned by Dr. Keith as inaccurate in the light of the Chinese tradition. But

Dr. Keith here appears to have been unfair to Māṭhara in his zeal to demolish Dr. Belvalkar. A careful reading of the passage in question in the Māṭhara-Vṛtti will show that it does not carry the sense which Dr. Belvalkar reads into it and is therefore not liable to the charge of inaccuracy which Dr. Keith has levelled against it. The passage says : "This wisdom (of the Sāṃkhyas) was handed down by Kapila to Āsuri, by Āsuri to Pañcaśikha, from whom it came to Bhārgava, Ulūka, Vālmika, Hārita, Devala, and others. Afterwards from them it was obtained by Īśvarakṛṣṇa. That same (wisdom) called the Saṣṭitantra was summarized (by Īśvarakṛṣṇa) in Āryā metres".

The passage leaves no doubt that Devala was not a direct teacher of Īśvarakṛṣṇa, any more than Bhārgava, Ulūka, Vālmika, and Hārita with whom he is co-ordinated. Moreover, there is ample room in the word 'प्रभृति' ('and others') to hold Vārṣaganya, who might thus intervene between Devala and Īśvarakṛṣṇa.

(2) I further agree with Dr. Belvalkar that Īśvarakṛṣṇa—who is not the same as Vindhya-vāsa—is to be dated in the first or the first half of the second century A. D. ; but here I would add the words "*at the latest*", thereby reserving my right to carry the date backwards in the light of the date of Anuyogadvāra, which will be considered hereafter.

(3) I do not think that हिरण्यसप्ति was a work of Vindhya-vāsa, and 'some sort of a commentary on Īśvarakṛṣṇa's Sāṃkhyakārikā.' I rather think that it was the same as the Saptati or the Sāṃkhyakārikā—the 'Kaṇaga Sattari' of Anuyoga—and its attribution to Vindhya-vāsa was due to misapprehension arising from the latter having probably written 'some sort of a

commentary on the Saptati.' Dr. Takakusu quotes a passage from Kueichi, pupil of Hiuentsang, as follows :— "The Sāṅkhya school was formerly split up into eighteen groups, the head of which was Ba-li-sha, meaning the 'Rain' (Varṣa). His associates were all called the 'Rain-host' (Vārṣaganya). The 'Gold-seventy' (Hiranyasaptati) is the work of them." This does not require us to suppose that the Gold-seventy was a work of Vindhavāsa ; it only attributes it to the 'Associates' of 'Rain'—the 'Rain-host' (Vārṣaganya)—of whom Vindhavāsa may be one, and the same may be traceable to that of the original founder—one Vārṣaganya,—a predecessor of Īśavarakṛṣṇa and one of the sages mentioned in the Mahābhārata. The Saṣṭitantra may conceivably be his work¹⁵. The Chinese tradition that Vindhavāsa was a pupil of Vārṣaganya may be understood in the sense of his being the 'ācārya' or founder of the School to which Vindhavāsa belonged later in the third century A. D.

We thus arrive at the following chronological order :—

1. Saṣṭitantra (to be placed before the Christian era : circa 150 B. C., if it be a work of Vārṣaganya earlier still, if Pañcaśikha's).
2. Kaṇagasattari (in the first half of the second century A. D. at the latest, the date being subject to alteration in the light of the date to be assigned to the Anuyoga passage).

¹⁵ I do not commit myself to this view. Saṣṭitantra may be even older than Vārṣaganya and may have to be ascribed to Pañcaśikha in harmony with the Chinese tradition. Vācaspati Miśra's "पठितवानुशिष्टि" would then mean not a quotation from Saṣṭitantra but 'a teaching in accordance with (अनु) Saṣṭitantra.'

3. Māṭhara-Vṛtti, a commentary on Kaṇagasaṭṭari (in the second half of the second, or first half of the third century A. D., subject to alteration in the same way as the Kaṇagasaṭṭari).

If we accept Weber's view that the Jaina Siddhānta was given its present shape between the third and fifth century A. D., the latest date for the foregoing passage of Anuyoga will be the beginning of the fifth century A. D. For the same passage occurs with slight alterations in the Nandisūtra, and supposing the Nandisūtra is a work of Devardhīgaṇin (end of the fifth century A. D.), the passage in question from Anuyoga will have to be placed some time before it. Now, if Vātsyāyana is later than Nāgārjuna (250 A. D. Dr. Vidyābhūṣaṇa), Vātsyāyana and Māṭhara have to be accommodated in the interval between 250 A. D. (the date of Nāgārjuna) and 400 A. D. (the date of the passage of the Anuyogadvāra). Allowing a margin of 50 years on either side, the remaining period of 50 years is all too short to account for the development of logic, such as we have noted above, between Vātsyāyana and Māṭhara. If, on the contrary, we accept the Jaina Śvetāmbara tradition as it stands—and we cannot set it aside except for very cogent reasons—and assign the present edition of Anuyoga to Āryarakṣita¹⁶ who lived in the second half of the first century A. D., the dates of the Sāṃkhyakārikā (= 'Kaṇagasaṭṭari') and the Māṭhara-Vṛtti will have to be shifted to the first century B. C. and early part of the first century A. D., respectively. Now, one strong reason for assigning the passage in Anuyoga to the

¹⁶ The Jain tradition ascribes not only the division of Anuyoga, but also the compilation or composition of Anuyogadvāra to Āryarakṣita (see Āvaśyaka I. 774).

latter part of the first century A. D., rather than to some period between the third and the fifth century A. D. is that the passage refers to Buddhistic scriptures in an altogether general way—it calls them merely उद्दसासण¹⁷ while the Sāṃkhya works referred to are no less than three, which are mentioned specifically over and above the general काविलियं (the philosophy of Kapila). Had the Anuyogadvāra been written in the 3rd or 5th century A. D., in the age of such eminent Buddhistic teachers we would have found them or their works mentioned as Nāgārjuna,¹⁸ Āryadeva, Asaṅga and Buddhaghoṣa, individually, as has been done in the case of the Sāṃkhya authors. The list clearly reveals an atmosphere of flourishing Brahmanism which, as we know, characterized the three or four centuries from the death of Aśoka to the coronation of Kaniṣka. That the *Mahābhārata* and *Rāmāyaṇa* were popular works read at certain hours of the day among the people in the time of the Anuyogadvāra does not impair the conclusion we have arrived at. For we know that they were read in the remote Indian colony of Kamboja about 600 A. D., and the custom of reading them as sacred literature may have been established in India several centuries before. Land grants dated in the 5th century A. D., and found in various parts of India, quote Mahābhārata as an authority possessed of the character of a Smṛti or Dharmasāstra—a status and breadth of popularity which it cannot have acquired in a couple of centuries.

17 उद्दसासण—Nandisūtra.

18 Could Nāgārjuna have been referred to in “नागसुहम्”? Nāgasena could be meant as well. It may be neither. If Nāgārjuna is meant, his date, which is still uncertain, should be pushed up, in the light of the date of the Anuyoga passage.

Having thus seen that the Māṭhara-Vṛtti may with a great deal of probability be referred to the first century A. D., we place Vātsyāyana a century or two earlier, which will account for the vast development of the Science of Logic which took place in the interval between Vātsyāyana and Māṭhara.

The date thus arrived at for Vātsyāyana may appear to be a violent outrage upon the date which is generally accepted among oriental scholars, *viz.*, the fifth century (450) A. D. But I submit, with all due deference to Dr. Vidyābhūṣaṇa, Dr. Jacobi, Dr. Keith and others who share the view, that arguments by which the theory of the fifth century A. D. is supported are in the first place inconclusive, and secondly they have not been co-ordinated with the evidence of the works cited above. If Dr. Jacobi is right in holding that Vātsyāyana's revised edition of the Nyāya-Sūtras discusses the Śūnyavāda or Nihilism of the Mādhyamika school of Nāgārjuna (about 200—250 A. D.) but not the Idealism of the Yogācāra school of Asaṅga and Vasubandhu, he cannot take the latter part of the 5th century A. D. (to which Vasubandhu was assigned by Dr. Takakusu) as the lower limit of the date of Vātsyāyana. For the date of Vasubandhu, as we have already seen, has been pushed back to the third century A. D. by the researches of Peri, and, therefore Vātsyāyana will have to be placed at the latest in the early part of that century. Again, even on Weber's hypothesis of the date of the Jaina Siddhānta, if Anuyoga belongs to circa 400 A. D., and Māṭhara to 350, Vātsyāyana cannot be later than 250 A. D. Although Dr. Vidyābhūṣaṇa's date of Vātsyāyana is thus carried back nearly 200 years, it requires to be pushed up still further by nearly three centuries if we

are to do full justice to the authority of the Śvetāmbara tradition about the composition of Anuyogadvāra. The only difficulty in the way is the supposed posteriority of Vātsyāyana to Nāgārjuna and to the author of the Laṅkāvatārasūtra. It is said that certain aphorisms in the Nyāyasūtra 'do not constitute an essential part of the Nyāyasūtra, and were evidently interpolated into it before or during the time of Vātsyāyana, who wrote a commentary on them.' I wonder how such a statement could be made, despite the fact that the impugned passages discuss (1) the question of the reality of the external world and its cause, which arises directly from the topics of 'प्रवृत्ति' and 'दोष' and (2) another about the nature of बुद्धि whether it is नित्य or अनित्य or क्षणिक wherein the Buddhist standpoint comes naturally to be considered as an extreme view in opposition to that of the Sāṃkhya.

It is remarkable that there is not a single Nyāyasūtra of a convincing character which reproduces *verbatim* the corresponding text or part of the text of Nāgārjuna's Mādhyamika Sūtra. The few that seem to do so contain either the Siddhānta or the Dṛṣṭāntas which could have come down from an earlier period and repeated *verbatim* according to the general custom of Indian writers, who love to make anuvāda of an opponent's position in his own words, and, besides, show little disposition to vary the Dṛṣṭāntas¹⁹. Besides the very fact that in the parallels which Dr. Vidyābhūṣaṇa had cited there is often a difference of words without a difference of sense points to the conclusion

19 Of this we have numerous instances in the commentaries on the Trividha Anumana collected in this very paper (See *supra*.) I just happen to read the illustration मरीचि-उदक-चन्द्र in the Laṅkāvatāra. Is it contended that the Upaniṣad which contains the illustration of जलचन्द्र is posterior to Laṅkāvatāra?

that the author of the Sūtras had used some work of Mādhyamika philosophy other than the Mādhyamika Vṛtti of Nāgārjuna. Thus, for example, Nāgārjuna's 'गते न गम्यते' etc. which Dr. Vidyābhūṣaṇa cites as the original of the Nyāya Sūtra 'वर्तमानाभावः पततः पतितपतितव्यकालोपपत्तेः' appears to me to be really not its original but only a parallel, the original being some other work earlier than both. Prof. Vidhuśekhara Bhāṭṭācārya has rightly observed : "Certainly Nāgārjuna established the Mādhyamika school. But it does not follow from it that all the materials for building the new structure were his own. He chiefly collected them from the works previous to him, such as the Prajñāpāramitā, Laṅkāvatāra, etc."

Now the Laṅkāvatāra itself clearly indicates that it is based upon older traditions of the Mādhyamika philosophy. The very mythological setting of the treatise, in which Buddha teaches the doctrine of Śūnyatā to Rāvaṇa, shows that the author wants the reader to accept the doctrine as an old heritage. Besides, it is clearly declared to have been taught by 'former Buddhas,'²⁰ which need not be taken literally, but which does point to a date long prior to the composition of the Laṅkāvatāra Sūtra. Besides, one of the passages of the Laṅkāvatāra shows that the doctrine of Kṣaṇikatā had been criticized before and the author had therefore to stand on his defence and explain what it really meant and what it did not mean. Thus, we read :

निर्व्योपारं क्षणिकं विविक्तं कायचर्जितम् ।

अनुत्पत्तिं च धर्माणां क्षणिकार्थं वदाम्यहम् ।

उत्पत्त्यनन्तरं भग्नं न वै देशेभि बालिशाः ।

²⁰ लङ्कावतारसत्रं नै वै नुद्वानुवर्णितम् ।

All this is not surprising if we remember that the doctrine of Kṣaṇikatā, Nairātmya or Śūnyatā, is of the very essence of Buddhism, and its logical representation must have been attempted centuries before the age of Nāgārjuna and Laṅkāvatāra Sūtra. The controversy of Sāssatavāda and Ucchedavāda is at least as old as Buddhism, perhaps even the Upaniṣads (see Br. Up.); moreover, the very existence of a school of Buddhist thinkers who call themselves Sarvāstivavādins (a sub-division of the Sthaviras and one of the primitive schools of Buddhism) implies that there existed a rival school who denied that "All exists". This may be either the school of Vijñānavādins who held that "not all, but only a series of Vijñānas exists", or those who denied existence to every thing, including even the Vijñānas²¹.

We may therefore claim that the Buddhistic doctrines which are noticed in the Nyāya-Sūtras do not require us to believe that they belong to a period posterior to the Laṅkāvatāra Sūtra or the Mādhyamika Vṛtti.

We have completed our study of the Nyāya Sūtra I. i. 5. It has yielded very important results in *re* the date of Gotama's Sūtras, and the history of Indian Logic in the millenium following the age of Gautama Buddha; and—what is of still greater importance—it has led us, in the humble opinion of this writer, to treat the date of Vātsyāyana as fixed by Dr. Jacobi and Dr. Vidyābhūṣaṇa as by no means a settled fact.

²¹ The two doctrines were more or less inseparably bound up together, and even as late as the Nyāya Sūtra it is difficult to decide whether a particular adhikarāṇa contains a refutation of one or the other.

THE THEISM OF GAUTAMA, THE FOUNDER OF 'NYĀYA.'

BY GANGANATH JHA.

1. In the course of one's study of the Indian Philosophical systems, there is scarcely any subject more perplexing than that of Theism. The common belief is that the Pūrva-Mīmāṃsā is most orthodox and hence the most thoroughgoing protagonist of Theism; but every student of this system knows what position if any 'God' occupies in that system. To say nothing of *the* 'God,' the Creator of the Universe, the Mīmāṃsaka denies all 'gods,' except as hypothetical entities, accepted only as necessary factors of the act of 'sacrifice'.

2. Then comes the Uttara-Mīmāṃsā, popularly known as 'Vedānta'; the place assigned to this system in the hierarchy of orthodoxy is next, if even so, to the Pūrva-Mīmāṃsā only. But here also, the exact position assigned to God is an interesting subject of study. He is not the creator, not the *nimitta-kāraṇa*, but the constituent cause, the Upādāna, of the Universe; and even so his position is lower than that of the highest Being, Para-Brahman.

3. The 'theism' of the two Mīmāṃsās however, notwithstanding the popular conception regarding it, has long been appraised at its true value by all serious students. The Mīmāṃsaka has long been stigmatised as 'atheistic', and Kumārila has had to make extraordinary efforts to bring it into the 'Āstikapatha' (vide

Ślokavārtika). The Vedāntin also has been openly called the 'pracchanna Bauddha', 'the hidden Buddhist.'

4. When we turn to the Nyāya, we find that, thanks to the two works of Udayanācārya, it still holds the field as the stoutest champion of orthodox 'Theism'. So far as the later works are concerned, there does not seem to be any doubt as to the fact that the Naiyāyika is the most thorough-going upholder of the view that the world is the creation of God.

5. What we are going to consider now is the exact position taken up on this subject by the founder of the Nyāya system. The Nyāya-sūtras, according to the Bhāṣya-kāra, are divided into three sections—*Uddēśa*, *Lakṣaṇa* and *Parīkṣā*. The *Uddēśa* of all categories is contained in the opening *sūtra*. In this *sūtra*, we find only the generic term '*pramēya*' 'object of cognition'; and the individual objects of cognition are *uddiṣṭa* mentioned, in *sūtra* 1. 1. 9, where we find the general term '*ātman*' ; and under *Sūtra* 1. 1. 10, as the *anumāpaka* or indicative, of the existence of the Ātman are mentioned, Desire, Aversion, Effort, Pleasure, Pain and Cognition. This is the *lakṣaṇa* of '*Ātman*'.

6. A full '*parīkṣā*' is contained under Sūtras 3. 1. 1. to 27. These 27 Sūtras are divided into 5 sections :—The first section proves '*Ātman*' to be distinct from the sense-organs, the second proves it to be distinct from the Body; the third section deals with a side-issue; the fourth proves the Ātman to be different from *Manas* ; and the fifth proves that it is an eternal entity.

7. There is no mention in all this of any such division as into '*Jivātman*' and '*Paramātman*'.

8. When we come to the Fourth Adhyāya, we find the theistic view stated in unmistakable terms in Sūtra 4. 1. 19, which says—‘God is the cause, because the action of man is found to be fruitless.’

9. This would appear to clinch the whole discussion regarding Gautama’s position. But on closer scrutiny we find that this theistic doctrine has been put forward among ‘the views of prāvādukas’, says the Bhāsyakāra, according to whom, therefore the Sūtra does not represent Gautama’s own view. It is in fact preceded by the much-maligned and ill-understood Śūnyavāda’ doctrine, which is dealt with under, Sūtras 4. 1. 14 to 18.

10. It is only when we come to read the Vārtika that we find that the peculiarity of the position was realised: And it is no wonder; since it was the author of the Vārtika who had to guard the Nyāya against the attacks of ‘Kūtārkikas’, i. e. atheists. He has therefore, with a view to show that the doctrine of Theism is not meant by Gautama to be relegated entirely to the circle of ‘*prāvādukānām drṣṭayah*’, construed the words of the Bhāṣya—‘Atah param prāvādukānām drṣṭayah pradarśyante’-by adding the tell-tale words—*Kānicit pratiṣidhyante Kānicidabhyanujñāyante*’, ‘some of the views are negated and some are accepted’; evidently the doctrine set forth in Sūtra 4. 1. 19 regarding ‘God’ being the ‘cause’, being the only one that is ‘accepted.’

11. A study of the commentators however sheds a lurid light upon this device of the Vārtikakāra ; and shows how hopelessly confused is the entire attempt to fasten this doctrine on Gautama. According to the

Bhāṣya, the *Vārtika* and Viśvanātha's *Vṛtti*, Sūtra 19 'God is the Cause' represents the view of the Sūtrakāra himself; this is objected to by the opponent who says (Sūtra 20)-'If God were the Cause, and not man's action, then results would follow, even in the absence of any act of man';-and this is rebutted by Sūtra 21, which says that the act of man is helped, in its fruition, by God.

12. As this appeared to be inconsistent with the words of the *Bhāṣya* introducing the doctrine as 'prāvādukānām' view, the *Tātparya* takes the entire section as levelled against the Vedāntic conception of God being the constituent or material cause of the world. According to this explanation, Sūtra 19-'God is the Cause' sets forth the Vedānta view, that God is the material cause, and this is rebutted in Sūtra 20, and the Nyāya view-that God is the *Nimitta-kāraṇa*-is set forth in Sūtra 21. This interpretation by the *Tātparya* has been supported by the *Parisuddhi*, which remarks that Sūtra 19 must be taken as referring to the 'material cause', because the preceding section has dealt with the question of that cause. Vardhamāna also has accepted this same explanation. Viśvanātha is hopelessly confused in his attempt at grappling with the difficulty.

13. The very fact of 'man's action' being set up as an antithesis to the 'agency of God', would seem to indicate that what the Sūtra is thinking of is the *nimitta*, and not the *Upādāna, Kāraṇa*.

14. The commentators are fully agreed regarding the final siddhānta of the Nyāya being that God is the *nimittakāraṇa*. All that we mean to show is that there is no unanimity among them regarding the exact

bearing of the *Sūtras*; and it is highly significant that there should be this want of unanimity regarding the vital point.

15. It is to be noted that the doctrine of Theism has found no mention anywhere in the sections that contain Gautama's statement of his own views, and that it has been found sandwiched among avowedly heterodox doctrines; and has therefore called forth all the ingenuity of all the later commentators, from the *Vārtika-kāra* downwards.

16. Incidentally we may note also that according to the *Vārtikakāra*, there is no such thing as सर्गादि, 'beginning of creation'. He says clearly on p. 445 (Bib. Ind. Edition), 'Sargāderana-bhyupagamāt,' and again on p. 466, 'ādēranabhyupagamāt.' If there is no *ādi*, beginning, of *creation* (*sarga*), what would be the meaning of God being its *nimittakārana*?

17. From the above it would appear that the conception of God as the 'Creator' of the world did not form part of the philosophy as propounded by Gautama; and perhaps it was on account of the heretics having taken advantage of this fact that Gautama's followers had to put forth strenuous efforts to base their theism upon Gautama's words and to prop it up by means of subtle reasonings; so much so that they have come to be looked upon as the doughtiest champions of the Theistic faith.

LOGIC
IN THE PHILOSOPHICAL SYSTEMS
OF ŚĀNKARĀCĀRYA AND ARISTOTLE

By R. ZIMMERMANN, S. J.

The enquiry into the Logic in the systems of Śāṅkarācārya and Aristotle comprises three questions :

- (1) What do Aristotle and Śāṅkarācārya understand by Logic ?
- (2) What is the system of Logic, either expressly taught or implied in the two philosophies ?
- (3) In what relation does Logic stand to the other main heads of the two philosophical systems ?

I. The notion of Logic in Śāṅkara and Aristotle.

To observe the chronological order, Aristotle's notion and definition may be considered first. Nowhere in Aristotle is there a clean cut definition of Logic to be found. It has to be derived from the division of philosophy and the system of Logic itself which Aristotle propounds in the "Organon". There can, however, be little doubt that he understands by Logic the science of correct thinking, or the science of those laws of thinking by which reason has to be governed to preserve the right order in its functions. Etymologically, Logic is the science of the λόγος meaning in Aristotle tongue, speech, language, in the first place; it signifies, secondly, the notions and thoughts, expressed by words and speech (वाच्यार्थ); thirdly it indicates the faculty of thinking and reasoning. Both from the etymological meaning and from a consideration of Aristotle's system of Logic, it is clear that

his system of this science comprised the so-called formal logic, moreover epistemology or criteriology, and finally methodology. For, in his logical writings the philosopher analyses the process of thinking, inquires into its forms and functions by defining its various elements and means, concept, judgment and conclusion. Then he examines the validity of the general principles and states their application to the reality, affirming that thought is but the representation of the reality in its various degrees. Finally he goes into the methods of the various sciences, seeing how far they merely apply to their object the general laws laid down by Logic. It is because Aristotle maintains that thought represents reality, that he cannot be considered as an exponent or follower of "formalistic" Logic, which makes the laws of thinking its object to such an extent that it neglects the contents of thought altogether. The real end and aim of Logic, to find the truth, is shaped by the general tendency of the human mind towards the truth. This tendency has been given by no one better expression than by Aristotle himself in the classical words with which he opens his treatise on Metaphysics, and it permeates the whole system of the Stagirite in such a manner that his Logic receives its right to be from the desire to know, *viz.*, the truth.

Though the beginnings of philosophical thought may have been very much the same in ancient India and Greece, yet the development of it apparently did not march along the same lines. In India specialisation of the various branches of knowledge was soon adopted to such an extent that the organic connection between the different sciences was lost at a comparatively early date. These branches, instead of forming

one organic body of thought, had each one and the same purpose, the explanation of the great questions about God, the World, our own Soul and its functions. The two Mīmāṃsakās, as well as Nyāya and Vaiśeṣika, and not less than Sāṃkhya and Yoga, pretended to solve these questions in harmony with the Śruti. In the beginning, then, they were all centred round the Śruti, but it must be accepted as an historical fact that these sciences of exegesis did not, according to their own natural character and purpose, develop into branches of the one great philosophical system based on Śruti, subordinate as we might expect, but they grew into various independent systems, co-ordinate to one another.

The reason for the mutual independence of Logic from Metaphysics, for instance, is therefore to be sought in the position which philosophy occupied at the beginning : each of these philosophical branches were like Vedāṅgas, immediately connected with the traditional teaching of the Śruti which they undertook to interpret. And now Logic, for instance, instead of combining with some other branch of philosophy, Metaphysics, *e.g.*, developed into a complete system, supposed to lead as well as any other to the desired goal of all philosophy. This goal was the Mukti, Liberation, in later times, in earlier periods simply the answer to the many whys? and hows? any thinking man would ask the Śruti and its exponents. It might thus be in keeping with modern notions, but unhistorical in this case, to look in the system of Nyāya for completely developed Metaphysics and, *vice versa*, in Vedānta for a systematic exposition of Logic. Nor is it surprising at all, if in all Śaṅkara's writings nowhere a binding definition of Logic may be discovered. But

it is quite certain that a head so clear as that of Śaṅkarācārya's had a very definite notion of Logic and knew its limits and its functions in philosophy right well. For Saṅkara, not less than for Aristotle, Logic is the science of correct thinking, or the science of those laws of thinking by which reason has to be guided to preserve the proper order in its activities.

There is, however, one great difference between the two philosophers. In Aristotle's system reason is the supreme arbiter in all questions before the court of human enquiry, whether it deals with established facts of the outside world, or the inner psychological life of Man, or even tries to penetrate the depths of the other world, and attempts to dive into the divine Essence and Life. Not so in Śaṅkarācārya's system. It is declared in so many words that Logic has to recognise a court of appeal set up in Śruti. The range of Logic appears thus limited in Śaṅkarācārya's system. It is of little avail to say that the final authority, the *anubhava*, is again independent of Śruti. Anubhava as a psychological act may be independent of Śruti, but not independent are the contents of the act which are furnished by Śruti. These points of difference between Aristotle's and Saṅkara's system are then to be registered:—Saṅkara has not developed like Aristotle a scientifically logical system which could serve as an infallible guide in all the other chapters of his philosophy. Second, he allowed Logic only a limited field of highest and final authority in the most important questions. If it clashes with Śruti, human reason, though it may work according to the laws of Logic, is no more credited with sufficient light to be a sure guide to the desired goal, the ultimate truth.

II.—The system of Logic.

To begin with Aristotle. His system of Logic is expounded in the so-called "Organon", the instrument of investigation and knowledge. The Organon comprises *Katηγορίαι* which treat of the fundamental forms of "affirmations concerning the existent". The short essay *Περὶ Ἐρμηνείας* analyses the proposition and logical judgment; the *Αναλυτικὰ Πρότερα* examine the syllogism; the *Αναλυτικὰ Υστερά* give the philosopher's view on proof, the definition of a thing, the division of things and of their concepts and the cognition of principles. The *Τοπικά* treat of the dialectal or examining inferences, arising from probable assumptions. The fallacies of the Sophists and their exposure are the subject-matter of the *Περὶ σοιστικῶν ἔλεγχῶν*.

These works form as many chapters in the whole system of Aristotelean Logic. First, there is the ontological order to be classified. Whatever may be attitude of the cognising mind towards its object, and whatever may be the reality of Being : that object and that Being will appear as something outside the mind, and will always appear as something definite. Hence the need of dividing Being and classifying the division. These divisions of Being form the Aristotelean categories. They, in their turn, form the contents of the notions, the concepts, which represent the outside world accurately. The categories are ten in all :—(1) substance: man ; (2) quantity: two miles long ; (3) quality: white ; (4) relation : double, greater ; (5) place : at sea; (6) time : now ; (7) position: lies; (8) possession: armed; (9) action: burns; (10) passion: is cut. That the contents of thought and the forms of speech correspond with the forms of Being is expressly stated by Aristotle. And as both the concepts and

the forms of speech are alike based on the forms of existence, they correspond themselves with each other. Naturally then, the objective concepts as well as the forms of thought and speech are considered and examined by Aristotle in their relation to reality. Thus substance as category denotes the substantial and the independent ; it denotes also the essential. The essential makes up the contents of the concept— $\Delta\delta\gamma\sigma$ —and is the logical parallel to the ontological thing outside. The most outstanding feature of the substance is its independence from another substratum in which it might inhere, and the power of expressing the thing determined and circumscribed. For the substance, more than anything else, makes the thing to be what it is.—All the other categories are $\Sigma\nu\mu\beta\epsilon\beta\eta\kappa\sigma\tau\alpha$, accidents. They denote anything that is extraneous to the bare essence of a thing and not essentially included in its concept. There are accidents that necessarily are connected with the essential ; such an accident is the equation of all the angles of a triangle with two right angles. Other determinations, like colour, are merely accidental.

The combination of concepts, formed and circumscribed according to the objective categories, is the judgment, the expression of which is done through the proposition. The proposition is either affirmative or negative; both are either true or false. Truth in Aristotle is, as has been stated above, nothing but the agreement of knowledge with reality. Now as every proposition is either true or false, the principles of contradiction and of the excluded third or middle follow as a matter of course. Therefore, "of the affirmation and the negation of the same thing the one is always false, the other true." And "between the two terms of con-

tradiction there is no mean; it is necessary either to affirm or to deny every predicate of every subject." Or, if we apply these principles to the notion of existence and non-existence in one and the same thing it follows that "affirming non-existence of the existent, or existence of the non-existent, is falsehood; but affirming existence of the existent, and non-existence of the non-existent, is truth".

According to Aristotle a conclusion may be drawn from certain premises, and through their force ; this conclusion is supposed to be different from the premises. This form of ratiocination is called syllogism, the typical form for "reasoning out", or deduction. Aristotle's terms for induction is *Ἐπαγωγή* which suggests a drawing up of individual cases in lines, like troops. Only the complete induction according to him is a strictly scientific induction; the incomplete induction, combined with a syllogism subjoined, results in the analogical inference. Needless to say that sense-perception is recognised by Aristotle as a source of truth, since he builds his whole system on external experience as well as on the functions of reason. Human knowledge with Aristotle has as boundary line the individual (substance) on the one side, and the most general and universal on the other. The most general principles cannot be proved; hence universal truths or maxims have to be admitted as immediately certain. These ultimate principles—*ἀρχαι*—are the object of the intellect—*νοῦς*—they form an infallible source of knowledge. And as psychology is with the Stagirite a large field of enquiry, it goes without saying, too, that he acknowledges the internal testimony of our own consciousness as an independent source and criterion of truth. From his whole treatise on

Rhetoric, as well as from remarks made incidentally to the exposition of the syllogism, it is clear, finally, that Aristotle recognises the testimony of others, written or spoken, as a reliable source of truth.

The points of paramount importance in Aristotle's Logic may be summed up as follows:—

(1) Concepts and thought of the human mind correspond to the outside world; (2) concepts and thoughts are transmitted to the mind by (five) sources of knowledge, which are, at the same time, the criteria of truth; (3) these criteria can under no circumstances contradict or nullify each other; for truth is only one, and one and the same thing cannot be true and false at the same time.

In treating of Śaṅkarācārya's Logic there is, at the outset, the fallacy to be avoided of thinking that Śaṅkara's Logic might be worse than Aristotle's, because it is not such a systematic structure with the same clear features as that of Aristotle. Nor would it be correct to assume that certain tenets are not recognised by Śaṅkara, because they are not mentioned in so many expressed words. A logical maxim or law may not be mentioned by any of the three score passages in Śaṅkara's Brahmasūtrabhāṣya which treat of, or touch upon, Logic: yet it may all the same be a working principle with him and he may build momentous conclusions on it. The only safe way is to construct Śaṅkara's system of Logic in outline both from his direct utterances and from his whole philosophy as far as it supposes and embodies his views on the laws of thinking.

From the external shape of Śaṅkara's Logic it follows at once as a matter of course that it is in no

way a "formalistic" one, which merely considers the functions and laws of thinking as such, neglecting the contents of the thought. On the contrary, Śaṅkara's Logic is mainly epistemology and methodology, subservient to his higher ends of finding the truth and gaining *mokṣa*. Śaṅkara cannot be considered as an idealist either, in the unrestricted sense of the word, though his ultimate assertions may justify such a name to a large extent. Again, though certain tenets of his might countenance the suspicion that he was a sceptic, yet he uses reason to such a degree in building up his system that the term sceptic would become something very short of a misnomer. For, there can be little doubt that Śaṅkara not only believes in the theoretical capability of the human mind to attain the truth ; he also holds that, the necessary conditions on the part of the cognising subject and the object of cognition being fulfilled, the mind is actually in possession of truth. With Śaṅkara, too, truth is but the adequation of the cognising faculty to the reality. This definition of truth holds good in the पारमार्थिका अवस्था neither more nor less than in the व्यावहारिका अवस्था ; the objective reality, whatever that may be, is the प्रमाणम्, the mind is the प्रमेयम्. Śaṅkara went on holding this view on the mind and its object in face of his theory of the unreality of the world which goes against the plain, matter-of-fact view and the testimony of the majority of the sources and criteria of knowledge.

Unlike Aristotle, Śaṅkara does not seem to have aimed at a classification of the things that are the objects of perception and the basis of human thought. This was not so necessary for him as for the Greek philosopher, a good deal of whose labour was to be spent among the material things of this world into

which he carried his system of classification for purposes of science. Nor did Śaṅkara possibly even think such a classification worth his trouble, his one great end being to lead from the "unreal" world over to the only Reality along the shortest possible route. सत् or असत्, was for ever the great question with Śaṅkarācārya. Having once declared the appearance of individuals and the plurality of Beings as an illusion, it was not worth while any more to enquire what was the carrier of the erroneous illusion, and how it was clothed : in other words, the question of substance and accident waned into insignificance.

As to the sources of concept and thought, it is a well known fact that Śaṅkara recognises प्रत्यक्षः, अनुमानः, उपमानः, शब्दः as sources of knowledge. It is obvious that they correspond--details of external form left apart--to Aristotle's sense-perception, syllogism, analogical inference, and testimony of authority. The शब्दार्थापत्ति and अनुपलब्धिः, also recognised by Śaṅkara, have no parallels in Aristotle's Logic as independent sources of knowledge and criteria of truth. But there is one प्रमाणम्, though usually not mentioned by Indian writers as such, that unquestionably has not only been accepted by Śaṅkara, but, as a matter of fact, has been made the criterion of the परा विद्या, and which accomplishes nothing less than the transference of the अज्ञानिन् into the पारमार्थिका अवस्था. This most important प्रमाणम् is the अनुभव which has its accurate logical pendant in the (testimony of) consciousness, recognised and largely made use of by the Stagirite.

So far the logical concepts and their applications are essentially the same with the two philosophers. The differences to be registered are of such minor importance that they could not substantially affect their

whole systems. So it seems. There arises then the problem, how can on substantially the same logical basis the one philosopher rear his system of pantheistic monism, and the other a system of dualism? The ways of the two thinkers part in their concept of Being, and second in their application of the criteria of truth. The two steps are not independent of each other. For Aristotle, as we have seen, the principle of contradiction, and consequently the principle of the excluded third or middle is an universal axiom that does not suffer any exception whatever. "The same thing cannot at the same time and in the same respect belong and not belong to the same thing." It is a categorical Either Or which Aristotle here professes. Śaṅkara, on the other hand, feels no hesitation in postulating a middle term between the two contradictories, when he defines the objective Māyā as सदसदनिर्वचनीयम्.

As the principle of contradiction sustains thus a breach in the very first concept, that of Being, it is small wonder that the ontological foundation of the Śaṅkaramata becomes diametrically opposed to that of Aristotle. This exception from the principle of contradiction once accepted, the theory of Māyā, in the subjective and objective sense, loses its grotesque character. Śaṅkara cannot in earnest be taken to task for using a double standard of truth, the one set by the प्रत्यक्षादीने the other by Śruti, and realised and individually appropriated by means of the अनुभव. The distinction between the सत्त्वा and निर्त्त्वा विद्या may not be backed up by the Bādarāyaṇabrahmasūtraṇi; Śaṅkara is free to confess to them as a bold innovation of his own or his predecessors' genius.

There then lies the greatest difference between [F. O. C. II. 38]

the two logical systems of Śaṅkara and Aristotle :— Śaṅkara splits the concept of Being into two ; he postulates something between existence and non-existence, affirming contradictory predicates of the offshoot and, naturally, confessing its inexpressibility. With Aristotle Being either is or is not ; there is no third or mean between them. Consequent upon this, Aristotle has only one standard of truth and only one system of reality : absolute unity pervades the realms of the subjective and objective worlds.

III. The Relation of Logic to the other philosophical disciplines.

The position of logic is marked out by the general aim of that particular system of which Logic forms part, and by the main divisions into which that system is divided. As for the aim of Aristotle's philosophy, the student is not in the least left in the dark. The Greek philosopher observed the facts, analysed and classified them, drew from them his conclusions, and constructed his theories in that direction in which the ascertained data pointed. All through, the desire to know stimulated the investigator and, with an acumen unique for his time and for centuries to come, he based his doctrines on the World, its constitution and origin, on Man, and on God on the actual, observed state of things. Thus the Aristotelean system fully deserves the name of Realism. Never perhaps in all history of philosophy did a thinker start with less preconceived ideas, and very rarely, indeed, did a philosopher more carry his observations into his speculations ; and it would be difficult to find anyone who built his system with more consistency both on his observations and speculations. In fact, Logic and its laws, extracted from, and in harmony with, the reality, speaks the

final verdict equally in the plainest and the most sublime questions. If the laws of thinking permitted, a conclusion was accepted ; but no theory, however tempting in itself, and apparently unavoidable either from a theoretical or practical point of view, was admitted that could not stand the test of rigid Logic.

A consideration of the division of philosophy, as proposed by Aristotle, gives the same impression on the importance of Logic. He divides philosophy very much in the same way as Plato when he says :- "Philosophical problems and theorems are either ethical, physical, or logical". The logical theorems are those that have a general bearing on all subjects. They are not specifically physical or ethical, but universal, and as such reach all things, including metaphysical questions in particular. It is true, this arrangement seems to have been only a provisional one ; Aristotle's real division of philosophy is a distinction between practical, poetical (creative), and theoretical knowledge. As Logic has no distinct place in this division, it seems Aristotle considered it as a merely preparatory doctrine, though theoretical knowledge occupies the first place among the rest. In Metaphysics IV. 3 he points out the necessity of knowing Logic before studying Metaphysics. This, indeed, would seem to make Logic a propaedeutic science only to Metaphysics, if it would not actually include Logic in Metaphysics as a formal introduction. Since, however, Logic is the right method of thinking, not only in Metaphysics, but in all philosophical disciplines, it is beyond doubt that Logic occupies the same position of a *conditio sine qua non* with reference to Ethics and Physics, in short to the whole philosophy, as it does to Metaphysics. This view that Logic is a propaedeutic discipline has not impaired in the least the strictly scientific and methodic

character of Aristotle's logical system. On the contrary, because he made weal and woe of his whole philosophy depend on Logic, he created such a perfect system of that science that rightly he is called the founder of scientific Logic in the West.

Turning to Śaṅkarācārya, we find that the position of Logic in his system, too, is fixed both by the general aim of his philosophy and by the distinction between the various disciplines that is either actually or at least virtually to be seen in his writings. For Śaṅkara, not less than for any of the great thinkers of ancient India, philosophy had to perform the grand task of liberation. And now Śaṅkara's position is marked off from that of most of his rivals in India and a good many illustrious names outside India by his doctrine that liberation from the dreadful bondage of migration is brought about by the intellect and its highest function, the proper knowledge, the ज्ञान par excellence. It cannot be denied that at first sight there seems to be an inconsistency in this that the bondage is effected by कर्म, action, both of will and body ; the liberation from it, on the other hand, is accomplished by the intellect and its activity. But it must not be left out of sight that even the संसार and all its causes and consequences are, as a matter of fact, the effect of ignorance, अज्ञान. Thus it is on the part of Śaṅkara not at all illogical to say that will and action may change the course of the transmigration, but true knowledge alone can do away with it. Thus the highest principle in Śaṅkara's philosophy is the λόγος in the sense of the faculty and its acts.

The question now arises, does this principle of liberation act according to fixed, unalterable laws ? The exercise of the cognising faculty which leads to

redemption is the अनुभव, self-realisation. This anubhava must be prepared by action, teaching, self-concentrating meditation, etc.; but how, when, why, it actually will take place is beyond all control. If it comes to the अज्ञानिन्, well and good, if it tarries, it cannot be forced. There is no कार्यकारणभाव between anubhava and any of its antecedents, no infallible means to bring it about in a definite manner and at a certain time. The conclusion, then, would seem unavoidable that the Vedānta of Śaṅkara raises knowledge, a logical principle to the highest possible dignity, yet he lowers it as a philosophical and scientific principle by removing it from the control such a principle is necessarily subject to.

The main heads of Śaṅkara's doctrine are summed up in the śloka :—ब्रह्म सत्यं जगन्मिथ्या जीवरो ब्रह्मैव नापरः । which amounts to the assertion of the (only) reality of the Supreme ontological Principle, the unreality of the (outside) world, and the identity between the human soul and the Supreme Principle. It is hardly justifiable to say that Logic occupies the position of a propaedeutic science in this division, as it does in Aristotle's philosophy. With Śaṅkara, Logic is only in a restricted sense the necessary supposition for the rest of philosophy. In his system it is not the universal logical maxim and principle that is without exception. If Logic runs counter to the ultimate thesis, All is brahman, then Logic has to end, its means are declared invalid and misleading and theories like that of the अध्यास are put forward to explain the contradiction. Thus there results the paradox that in Śaṅkara's sytem of philosophy for the sake of logical consistency Logic itself is set at nought.

ARCHAEOLOGY.

ORIGIN OF INDIAN ALPHABET.

BY D. R. BHANDARKAR.

All the earliest inscriptions found in this country have been engraved in two different scripts or *lipis*,--one called Brāhmī which was written from left to right as in all Hindu scripts of the modern day and the other called Kharoṣṭhī which was written from right to left as in Persian or Arabic. The latter flourished in the north-west part of India only, whereas the former was in vogue all over India, including the small region where the Kharoṣṭhī was written. Again, the Kharoṣṭhī died a natural death before the 4th century A. D., whereas the Brāhmī has been recognised to be the parent of all the scripts indigenous not only to India but also to Ceylon, Burma and Tibet. The foreign origin of the former has never been called in question, but the same has not yet been definitively established of the latter. Besides, the Brāhmī is admitted to have been framed by phonologists for writing Sanskrit and Sanskritic languages. The Brāhmī has thus been rightly looked upon as the real ancient alphabet of India. When, therefore, the origin of the Indian alphabet is the subject of discussion, the origin of the Brāhmī alone is understood.

Numerous and diverse are the views propounded of the origin of the Indian alphabet. They may, however, be reduced to three main theories. The first is that originally suggested by Prinsep who first unravelled the enigma of the Brāhmī *lipi*. He was in-

clined to ascribe the alphabet of Aśoka inscriptions to the Greek source. In this view he was followed by Otfried Müller and sometime after even by Senart¹. There can be no doubt that there is a great resemblance between the Greek and the earliest Brāhmī characters. But it is beset by insuperable difficulties based chiefly on grounds of chronology. Nobody now believes that the Brāhmī *lipi* originated in the Aśoka period. This view consequently has long since been rejected. The second theory we have to consider is that which regards the Indian Alphabet as having an indigenous origin. It was first suggested by Lassen and afterwards countenanced by Edward Thomas who thought it to be an invention of the Dravidian races of Southern India. This theory in somewhat recent times found an able supporter in Sir Alexander Cunningham who made a regular attempt to derive it from a primitive Indian picture-writing². Cunningham was followed by Dowson who maintained more emphatically that the Indian alphabet was an independent invention. The third theory is that of Semitic origin. It is upheld by a good many palaeographists, and is now in the ascendant. It was originally put forward as early as 1806 by Sir William Jones. Of the advocates of this theory two main classes are at present recognised. The foremost of one class are Deecke and Issac Taylor³ who hold that the Indian alphabet is derived from that of the Southern Semites in South Arabia, and, of the other are Weber and Bühler⁴ who maintain that it is derived directly from that of the Northern Semites, the earliest Phoeni-

¹ Isaac Taylor, *The Alphabet*, II. 304

² CII., I. 52.

³ *The Alphabet*, II, 314 & ff.

⁴ *Ind. Studies*, III. 53 & ff.

cian alphabet known to us from the long epigraphic document of Mesha, king of Moab, the oldest Sini-jirli inscription and certain characters engraved on the Assyrian Weights, which all have been supposed to be of about B. C. 850. The adherents of the latter view are now so numerous that it has become the accepted doctrine of all experts in Indian palaeography. This theory of the Phoenician origin of the Indian Alphabet was no doubt first propounded by Weber but the credit of establishing it on a firmer basis certainly goes to Bühler. It was he who brought all his scholarship and his expert knowledge of Indian epigraphy to bear upon the subject and has done real service to the cause of palaeography in establishing some conclusions which are even now unassailable. One of the strongest arguments urged by Cunningham and Thomas in rejecting a Semitic origin for the old Alphabet of India is the difference in the direction of the writing. All the epigraphic records of ancient India run from left to right whereas those of the Semitic races from right to left. Unless, therefore, it was proved that the Indians wrote from right to left it was impossible to adhere to any theory of Semitic origin. In other words, before any scholar can hope to propound the theory that the Brāhmī is derived from a Semitic alphabet, he has to prove in the first place that Brāhmī was at any time written from right to left like Semitic scripts and not from left to right as is generally known to us,—a point on which Cunningham and Thomas laid so much stress. And it must now be acknowledged that the adherents of the thoery of the Semitic origin have now clearly demonstrated that even the Brāhmī *lipi* was originally written from right to left. Thus

Bühler has drawn our attention to the fact that the legend on a coin, originally found by Cunningham at Eran but now deposited in the British Museum, consists of letters which not only have to be read from right to left but are also each reversed⁵. He has further shown that even in Aśoka's edicts single letters such as *dh*, *t* and *o* are sometimes found reversed, no doubt a reminiscence of the writing from right to left. Further such reminiscences have been pointed out by Mr. Wickramasinghe, the learned Editor of the *Epigraphia Zelyonica*. The students of Aśoka's inscriptions are aware of the rather peculiar way in which the conjunct consonants are engraved. Conjunct consonants, it need scarcely be stated, must be so written as to follow the order in the pronunciation of its sounds. And when a script is written from left to right as we do at present, the letter *t* must come above *p* in the conjunct consonant *tpha*, *s* above *t* in *sta*, *v* above *y* in *vya*. But what do we find in Aśoka's edicts? As a rule the letter that is pronounced first is placed below and not above the second letter. Such a reversal of the process is possible only in the mode of writing from right to left. The compound-letters of his inscriptions clearly show that the writing of Aśoka's period was still to a large extent influenced by the old long-settled system of reading from right to left⁶. But Aśoka's inscriptions are not the only instances of this kind. Mr. Wickramasinghe has informed us that in Ceylon have been discovered scores of inscriptions whose characters are in several instances cut reversely or which have actually to be read from right

⁵ *Ind. Studies*, III. 44-5.

⁶ *J. R. A. S.*, 1901, 302 & ff.

to left⁷. The important fact to note is that this anomaly is to be met with only in the most ancient inscriptions, *i.e.* in the Southern Aśoka character, and that there is not a single epigraph of a later date, in Ceylon as in India, which reads from right to left or in which individual letters are reversely engraved. The evidence thus set forth is strong enough to show that long long anterior to Aśoka the Brāhmī letters were written from right to left and in a reversed form but that shortly before his time people had commenced writing from left to right with the result that even in his time writing from right to left had not become completely extinct and that even in writings from left to right the reversed forms of single letters occasionally lingered both in India and Ceylon. An exactly analogous case has been furnished by the earliest Greek alphabet called the Cadmean alphabet⁸. From the island of Thera, now called Santorin, have been obtained upwards of twenty inscriptions extending over two or three centuries. The latest have been written from left to right in a Greek alphabet approaching to the Abu Simel type, but the earliest are engraved from right to left and in reversed Greek characters thus resembling letters of Phoenician style. What thus happened in the case of the Greek alphabet must doubtless have happened in the case of the Brāhmī *lipi* also. Thus the argument that the ancient alphabet of India always ran from left to right which was urged by Cunningham and Thomas against its foreign origin was completely demolished by the evidence adduced by Bühler and Mr. Wickramesinghe. There, however, remained the third vehement advocate of the theory

7 Ibid., 1895, 896-7.

8 Issac Taylor, *The Alphabet*, II. 28 & ff.

of indigenous origin. *viz.*: Dowson⁹, who boldly challenged his adversaries "to show whence it came" if the Indian alphabet was a foreign importation, no sufficient resemblance between the Brāhmī character and any class of Semitic alphabet being till then established. Then came Isaac Taylor¹⁰ who first made a systematic attempt at showing a close correspondence between the Brāhmī and the Sabean alphabet of Arabic Felix. And he was soon followed by Bühler who showed the still closer correspondence of the Brāhmī with the alphabet of the Northern Semites thus demonstrating as he thought the correctness of the hypothesis which Weber originally put forth but could not prove owing to the lack of materials when he wrote¹¹. Bühler went further and showed that the theory of a South-semitic origin of the Brāhmī alphabet was untenable, because the resemblance of character between the two pointed out by its advocates was often fanciful and assumed most extraordinary changes in the phonetic value of the signs, especially when Hindus had always been very particular, nay pedantic, in matters connected with phonetics. On the other hand Bühler's theory was not free from an element of doubt, to which Prof. Rhys Davids was the first to draw our attention¹². Direct intercourse between India and South Arabia along the coast was at least possible, though not probable in the 6th or 7th century B.C. So that it is at least possible, on this ground, to trace the source of the Brāhmī *lipi* to South Arabia though on other grounds it is untenable, as Bühler has shown.

9 J. R. A. S. (NS.), XIII, 112

10 *The Alphabet*, II. 318 & ff.

11 *Ind. Studies*, III. 54 & ff.

12 *Buddhist India*, 114

"But no one has yet contended that the Indians had any direct communication with the men who, on the borders of Palestine, inscribed the Mesa stone, where the resemblance is greater." Prof. Rhys Davids is, therefore, compelled to put forth the hypothesis that "Indian letters were derived, neither from the alphabet of the Northern, nor from that of the Southern Semites, but from that source from which these, in their turn had been derived—from the pre-Semitic form of writing used in the Euphrates Valley." Unfortunately, Prof. Rhys Davids has not shown what this "pre-Semitic form of writing used in the Euphrates Valley" is, whether there is any convincingly sufficient resemblance between it and the Brāhmī *lipi*, and at what period approximately it was transplanted into India. Unless some light is thrown on these points, his theory about the pre-Semitic form of writing is wholly conjectural, being unsupported by any known facts. It is this conjectural nature of his theory that, I am afraid, has prevented scholars from perceiving the flaw in Bühler's theory which Prof. Rhys Davids has correctly pointed out. Unless it is clearly shown that India had direct intercourse with the borders of Palestine in the 7th or 8th century B. C., what is the good of saying that the Brāhmī *lipi* is derived from the alphabet that was prevalent in that part of the World and at that period, as Bühler has no doubt done? Nevertheless, scholars have not taken cognisance of this glaring flaw so ably perceived by Prof. Rhys Davids, and have rather precipitately fallen in entirely with the views of Bühler. The triumph for the Semitic theory was thus complete, apparently at any rate, and continued to be so until three years ago when the prehistoric cairns in the Nizam's dominions were excavated

in Rajgir in the Nalgonda District. On cleaning the pottery dug out here, Mr. G. Yazdani, Superintendent of Archaeology, noticed peculiar marks on them, which in some cases were so faint that they would have escaped his notice, being mistaken for ordinary scratches but for the identity of one of them with a character of Brāhmī script which was fresh in his mind as he had then only recently finished his eye copies of the newly discovered Aśokan edict of Maski.¹³ The identity impressed him ; and as he continued to wash and examine the pots, he found that every one of them was similarly marked. Similar marks had been noticed by the late Mr. Bruce Foote on the pre-historic pottery exhibited in the Madras Museum. Mr. Yazdani naturally visited this Museum, and personally and carefully examined all the pots and potsherds collected here from the fourteen districts of the Madras Presidency and the various sites of the Mysore and Travancore States. No less than one hundred and thirty one different marks was he able to notice, of which he prepared a diagram accompanied by a brief description of each pot. But this number he rightly regards as by no means final, as pottery from every fresh site may add to it, and, as a matter of fact, has since then added to it. It may be mentioned here in passing that the pre-historic pottery dug out in the Hyderabad cairns is associated with Megalithic structures which cannot be later than 1500 B. C. and that some of the pottery exhibited in the Madras Museum belongs to the Neolithic age¹⁴, which cannot be posterior to 3000 B. C. What is, however, most noteworthy in this connection is that at least five of these marks are identical with the

¹³ *Jour. Hyder Arch. Soc.*, 1917, 57 & ff.

¹⁴ *Ibid.*, 65-6, nos. 1 & 3.

letters of the earliest Brāhmī alphabet. Is it not possible that this script was after all derived not from any foreign but an Indian alphabet though of the pre-historic period? Fortunately for us this phenomenon is confined not to India only but is noticeable also in Europe. A large number of pebbles were discovered by M. Ed. Piette at Mas d'Azil, on the left bank of the Arize in France belonging to a stratum between the Palaeolithic and Neolithic Age. On some of these pebbles symbols resembling the capital letters of the alphabet have been found painted. Piette himself is inclined to see in these symbols the forerunners of the later syllabaries and alphabets of the East, nine of them agreeing with forms of the Cypriot syllabary and eleven with those of the Phoenician alphabet¹⁵. It is, therefore, perfectly reasonable to see, in the symbols on the pre-historic pottery of India, the forerunners of the characters constituting the Brāhmī *lipi*. If we now carefully examine the diagram of symbols prepared by Mr. Yazdani it must be admitted that some of them do look like pictograph or ideograms. But it cannot be denied that a fairly large number of these signs look like letters of an alphabet. Five of them, as has just been stated, are certainly identical with the characters of the earliest type of the Brāhmī *lipi*. No doubt, this number is very small, but this is just what might be expected. For how is it possible to expect a larger number of identical letters in alphabets which were separated by milleniums? Nor is it reasonable to doubt the identity of these letters precisely on the same ground. i.e. because these alphabets were divided by milleniums. For we know that some of the pre-historic symbols found in Egypt and referred to a period

¹⁵ *Encycl. Brit.*, I. 724; XXVIII. 852.
[F. O. C. II 40].

anterior to 5000 B.C. have been found to be identical with some of the alphabetic signs of the Phoenicians e.g., which have been assigned to Circa 900 B.C.—showing thus an interval of four milleniums. Coming to our own country do we not find that the letter *g* e.g. of the inscription on the relic-casket of the Piprahwa Stūpa which may be ascribed to about 500 B.C. has survived in that exact form to this day in the modern Kanarese script? Another reason why we have to consider some of these symbols to have an alphabetic value is that there seem to be signs even for expressing medial vowels (such as we see in Aśoka's time). Thus No. 3 in Mr. Yazdani's diagram seems to me clearly to be *go* i. e. *g* with the medial vowel *O*. And No. 13 is almost certainly *to*, the only difference being that the stroke indicating *o-kāra* is here attached not to the top but to the middle. An *i-kāra* also appears to have been expressed as in No. 10 for instance not, however, in the Brāhmī but in the Kharoṣṭhī fashion. Again, it is worthy of note that the diagram shows instances of reversed letters. Thus Nos. 4 and 5, 14 and 15, and 18 and 19 give symbols which are reversed or inverted forms of each other. These considerations are distinctly in favour of regarding some of the signs at any rate in the diagram as being alphabetic letters. The only argument that might be urged against this view is that there can be no earthly reason why single letters were scratched on these pots if we look upon these marks as alphabetic letters at all and that the only theory that appears plausible is that they are ownership marks. I am afraid I cannot agree to this theory. Because many of the signs in the diagrams are identical with the signs found elsewhere

outside India, on proto-historic and pre-historic antiquities e.g. in Egypt and Europe, and these latter have been proved to be alphabetic signs. Secondly, the custom of engraving a single letter which was also the initial letter of a name was by no means unknown to India. A typical case is furnished by Stūpa No. 3 at the well-known Sāñcī in the Bhopal State, Central India. Here two relic-caskets were found, the inner surfaces of whose lids bear, in one case, the letter *sa* and, in the other, the letter *ma*. If we had had merely these relic-caskets to go upon, I am sure the significance of these individual letters would not have been grasped, and they would have been thought to be mere ownership marks. But fortunately for us, they were found inside two boxes, apparently of ordinary stone, each incised with an inscription to the following purport and explaining the initials in one case, *Sāriput-tasa*, and in the other, *Mahā-Mogalānasa*¹⁶. Is it not thus clear that the single letters *sa* and *ma* of the relic-caskets stand for the initial letters of the names Sāriputta and Mogalāna? Precisely the same must have been the case with the individual letters scratched on the pre-historic pottery of India which, be it noted, has been found in burial or inhumation sites. If there is any scepticism still left on this point, it is completely dispelled, I think, by two neoliths lying in the collection of the pre-historic antiquities of the Indian Museum. The credit of perceiving their importance goes solely to Mr. Panchanan Mitra, who is perhaps the only Indian scholar of the pre-historic archaeology of India. While one day he was engaged upon inspecting the pre-historic artifacts in our Museum, he suddenly lighted upon these neoliths which he rightly inferred to be

16 Cunningham's *Bhilsa Topes*, 297—9, & pl. 22.

inscribed with some characters. He forthwith hastened to my office-room and placed them before me for examination. One of these was certainly a celt of greenish stone found in Assam. It bears apparently four letters, two of which are exactly and one almost exactly similar to those of the pre-historic character of Egypt as may be seen from a comparison to the table published by Dr. F. Petrie in a recent number of the *Scientia*¹⁷. And what is strange is that they have all been connected by one continuous line as in the pre-historic Minoan epigraphs. The other neolith came from a place near Ranchi and is a tiny piece of hematite stone shaped like the palm of the right hand. It is faintly scratched with three letters only, two of which bear fairly great resemblance to those of the Brāhmī *lipi* of the Aśoka period. These were the letters at the ends, one of which was *ma* and the other *ta*. The middle letter, as it stood, could not be read for a long time. Then it occurred to me that the letter *ta* was evidently in a reversed form and the other, viz. *ma*, must remain the same even when it is reversed. Might the middle letter similarly present a reversed form? I at once held the neolith before a mirror, and to my agreeable surprise I found that the middle letter came fairly close to the Aśokan *a*. As all the letters are reversed, the inscription has to be read from right to left and reads accordingly *ma-a-ta*. This neolith as has been stated above was found in Bihar where there are still some tribes with non-Aryan tongues, which are believed to furnish a key to the languages spoken by the predecessors of the Aryan conquerors of India. And as was pointed out by Mr. Mitra,¹⁸ there is a word

17 XXIV. 440.

18 *Ind. Ant.*, XLVIII. 63-4.

Mahto or *Mahtou* in non-Aryan parlance, signifying 'a chief or headman' as is clear from Russell's *Tribes and Castes of the Central Provinces in India* and Risley's *Tribes and Castes of Bengal*. Could the *Ma-a-ta* of the neolith be equivalent to *mahto* or *mahton*? Whatever the answer to this query may be, this much is certain that we have here two neoliths whose neolithic character is undisputed and which bear each, not one individual letter so that it may be thought to be an ownership mark but many letters, one containing three and the other four. No scepticism is, therefore, here possible as to these being alphabetic signs and not ownership marks—a conclusion which is further fortified by the fact that they bear resemblance to what we know to be the actual alphabetic characters. Thus the discussion about the origin of the Brāhmī alphabet is transferred from the historic to the pre-historic sphere. This is just as it should be, for even in Europe all Semitic and other alphabets are now being traced to the pre-historic times, and the view is gradually gaining strength that the alphabet originated with the pre-historic man. It is true that Dr. Petrie, the most celebrated Egyptologist of the modern day, thinks pre-historic Egypt to be the cradle of all alphabets because it presents the largest signary from which the Phoenicians and the Greeks borrowed as many signs as were necessary for their alphabetic purposes ; but I am afraid that this is by no means yet an incontrovertible conclusion, especially as pre-historic archaeology of India is still in its infancy ; and as its study develops as a science, pre-historic India may be found to yield a still larger signary which was drawn upon not only by the Aryans and later peoples of India but also by outsiders,—the Phoenicians, Greeks and even Egyptians. Hence at the present day, when

characters of the neolithic period have been found in India, if we still insist upon asserting that the ancient Brāhmī *lipi* is derived from the South-Semitic or North-Semitic character, why not then derive it from the present English alphabet? This may incline the reader to laugh. But I may mention in this connection that in 1905 when I was in Calcutta, a young intelligent Bengali scholar showed me a note in which he most ingeniously derived the old Brāhmī characters from the present English alphabetic letters by adopting precisely the same principles according to which Bühler derived them from the North-Semitic signs. And we know that a similar attempt has been but recently made by Pandit Gaurishankar Ojha of Ajmer.¹⁹ Of course, all alphabets are at present being traced to one alphabet, which, as I have just said, was invented in the pre-historic period. Hence it is no wonder even if an earlier alphabet can be derived from a later one. But what I emphatically assert is that when symbols of this pre-historic alphabet closely resembling some of the Brāhmī *lipi* are actually noticeable on the most ancient remains of the primitive man in India and cannot be later than 3000 B. C. but may be as early as 6000 B. C. it is absurd to trace the old Brāhmī *lipi* to any Semitic script of 700 B. C.

19 *Bharatiya-pracina-lipimala*, 26.

A NOTE ON TILAKWĀDĀ COPPER-PLATE
INSCRIPTION OF THE TIME OF KING
BHOJA PARAMARA OF MĀLWA.

(VIKRAMA SAMVAT 1103)

BY

J. S. KUDALKAR, M. A., LL. B., Baroda.

The inscription was brought to my notice in the summer of 1919 by a brother-officer of the State Mr. R. D. Korde, Abkari Depot Officer at Tilakwādā through his brother Mr. L. D. Korde, B. A., now Vahiwatdar at Karjan. The inscription was discovered in May 1917 at Tilakwādā in the bed of the river Narmadā at the spot called "Nānā Owārā," (smaller bathing Ghāt) near "Dhobi Shālā" (washerman's depot). It was found by a man of the Dhānka community, named Bhailā Nāthā (now dead), while he was swimming and diving in the waters of the Narmadā.

The Plates are two in number, the first measuring $8\frac{3}{4}$ " by $5\frac{1}{2}$ " and the second 9" by $5\frac{1}{4}$ ". The plate at the beginning is missing and could not be discovered even after repeated efforts to find it out at or near about the former spot. The first plate is engraved on both the sides and the second on one side only, as the inscription ends on that side, thus leaving the outer side blank. Whether the missing plate was inscribed on only one side or on both cannot be known. The plates are in a perfect state of preservation, so that the reading of the text is nowhere doubtful. First plate front-side contains 12 lines of writing, first plate other side contains

10 lines and second plate contains 7 lines. In the upper part of the plate there is a hole in the centre for the ring. The *ring*, together with the *seal* if any, is missing and its loss accounts for the loss of the plate at the beginning. The weight of the two plates is about 2 lbs. The letters are clearly engraved and their average size is about $\frac{1}{4}$ " by $\frac{1}{4}$ ". The *characters* are Nâgari of the 10th Century and the *language* is Sanskrit. The whole inscription is in verse. A few grammatical inaccuracies are to be noticed. As regards *orthography*, the dental sibilant is used instead of the palatal in several places and the palatal instead of the dental in two places.

The inscription is dated Vikrama Sañvat 1103 (A. D. 1047) and is regarding the grant of a village, called "Viluhaja," along with a hundred (acres) of land from the neighbouring village of "Ghantâpallî for the temple of the deity Shri Ghaṇṭeśvara given by Shri Jaśorâja, son of Surâditya, probably a prince, feudatory to King Bhoja. The grant was given in the temple of Maneśvara, situated at the confluence of the river Manâ and the Narmadâ. The donee was a holy sage, by name Dinakara, and the inscription was written or engraved at the request of the King by a Kâyastha by name Sohika, son of Aivala of the family-name Vâla.

Now the details of the eulogy of the ancestors of King Bhoja are lost in the first missing plate. The second plate begins with the last quartet of the verse describing the immediate predecessors of Bhoja, who must have been Sindhurâja. Surâditya, the father of the donor, is described in the plate to have been an immigrant from Kanouj and to have rendered great help to King Bhoja by vanquishing the armies of his other rival princes, among whom one "Sâhavâhana"

is mentioned prominently. Now there is no doubt that this King Bhoja is no other than the famous Paramāra King Bhoja of Mālwā. According to Vincent A. Smith the Paramāra King Bhoja "reigned gloriously for more than forty years from about A. D. 1018 to 1060." With these dates the consensus of opinions of other scholars agrees with a few years' difference. Lionel D. Barnett, in his "Antiquities of India" gives A. D. 1010 as the year in which Bhoja succeeded his father Sindhurāja, the year in which Muhamud of Ghazni took Multan. Even accepting this date, the date of the present inscription (A. D. 1047) falls well within the long regime of King Bhoja, which, according to Barnett, terminated in 1055 when Jaysimha succeeded King Bhoja to the throne of Mālwā. The other King Bhoja II Parihāra or Prati-hāra, of Kanouj, had a very short reign of three years from A. D. 908-910 ; and the period of nearly 140 years between this date and the date A. D. 1047 of the present inscription cannot be accounted for by only one generation from Surāditya to his son Jasorāja, the donor.

Now who is this "Sāhavāhana and the other King" whom Surāditya defeated and thereby "made Bhoja's royal glory stable"? V. A. Smith refers to "his (Bhoja's) fights with the neighbouring powers, including one of the Muhammadan armies of Mahamud of Ghazni. L. D. Barnett says that "he (Bhoja-deva) carried on wars with Indra-ratha, Toggala (?), the kings of Chedi and Lāṭa, the Turushkas, the Chāhamānas of Nāḍol and the Western Chālukyas Jayasimha II. and Someshvara I. and overcame the Chaulukya, Bhīma-deva I." These references will explain the defeat of "other princes"; still the crux of the

inscription remains in the reference to "Sāhavāhana." The word "Sāhavāhana" cannot be a corruption of "Sātavāhana" which is another name of "Śālivāhana"; for this dynasty of "Sātavāhanas" came to an end in A. D. 218 with the 30th King of the line, by name Pulomāvi IV. (See R. G. Bhandarkar's "Early History of the Dekkan," 2nd, ed. P. 36, and V. A. Smith's "Early History of India," 3rd ed., table facing page 218).

Who then is this King "Sāhavāhana" so prominently mentioned in our inscription? Can he be one of the Turki "Sāhi" or "Shāhiya" kings, descendants of Kaniṣka, who ruled in Kābul till A. D. 870, when that city was captured by the Arab General Yakub-i-Lāis, and after that, shifted their capital to Ohind on the Indus, or is he a king of the dynasty founded by the Brahmin Lalliya, who overthrew the last of the Turki Shāhiya kings in the reign of Śaṅkaravarman of Kāshmir (A. D. 883-902) and whose dynasty, known as that of the Hindu Shāhiyas, lasted till A. D. 1021, when it was exterminated by the followers of Muhammad of Ghazni? The history of this King "Sāhavāhana" would indeed throw a new light on the history of the time of King Bhoja Paramāra of Mālwā.

The other allusions in our inscription can be very well explained. Tilakwādā is the head-quarters of the small "Mahāl" of that name, which is almost a minor part of the other contiguous "Mahāl" of Sankhedā in the Baroda Prānt of H. H. the Gaekwad's State. Samgamakhetamandala" in the inscription is the present 'Sankhedā"-mahāl (= Sam-Kheda or Khetaka). At Tilakwādā there is the confluence of the rivers "Narmadā" and "Manā" or modern Menā or Menī. The temple of "Maṇeśvara" is the modern temple of "Maṇi-Nāgeśvara" of God Śiva. At a distance of

about 11 miles from Tilakwādā is a village by name "Ghantoli", which must be a corruption of our "Ghaṇṭāpalli" in the inscription, and about two miles from Ghantoli is a village named "Velpur" which must be the corrupted modern form of the village "Viluhaja" or "Viluhayé" mentioned in the inscription. "Ghantoli" is now a railway station on H. H. the Gaekwad's "Motipurā-Tankhālā line, which joins H. H. the Gaekwad's Dabhoi Railway at Chhuchhapur, station for the Motipurā mines. At Ghantoli there is still to be found the temple of Ghaṇṭeśvara in ruins. The reason why the copper-plates were found at Tilakwādā and not in the Ghaṇṭeśvara temple at Ghantoli is that after the holy water for the land-grant was offered to the sage Dinakara in the temple of Maṇeśvara at Tilakwādā, probably the plates remained in that very temple and when that old temple of Maṇeśvara was probably washed away by the waters of the Narmadā, the plates also must have been carried away in the waters and remained buried in the bed of the Narmadā. The present temple of Maṇi-Nāgeśvara at Tilākwdā seems from its modern appearance to have been built on or near about the ruins of the old temple of Maneśvara.

The donor, "Śrī Jasorāja", seems to be of a royal descent; for his father Surāditya, who is said to have come from Kanouj and to have belonged to the family of "Śravaṇa-bhadra", is styled as "Narottama" (the best of men or a king). Then, while granting the land he called "sons of Amātya" and other prominent inhabitants to witness, which implies that he could command the "Minister's sons" to attend. Again, the writer of the plate is said to have inscribed it at the request of the "King", that is, probably Jasorāja

himself. At the time of the grant Jasorāja appears to have retired from life and to be leading a religious life on the banks of the Narmadā in Sankhedā Tālukā.

[THE TEXT]
First plate (Obverse)

प्रापुः सखित्वन् (म) चलं रिपवो दुरन्ताः ॥ तस्माद्भूव भुवि विश्रुतकीर्तिं पुंजं
श्रीभोजदेव इति शत्रु (क ?) जनस्य दंडी । दग्धाः (?) प्रतापशिखिना रिपुयक्षसां
सि निःकंटकं किल चकार चिरेण राज्यं ॥ तत्पादकमलध्याता कन्यकुब्ज-
विनिश्चुतः । वंशे श्रवणभद्राणां सुरादित्यो नरा (रो) त्तमः ॥ साहवाहनसंग्रामे
अन्येषामपि भूभुजां ॥ हत्वा योधां स्थिरां लक्ष्मीं भोजदेवे चकार यः ॥ एवं कुर्वन्
(न) सौ क्षीणसुराणां धुरि वर्तिना । सुरादित्योति यन्नाम य (च ?) तस्य हि शो-
भते ॥ तत्पुत्र श्री जसोराज संगमखेटमंडले । भुंजन्वृत्तिं सदा धर्मा धर्माया-
तिरां बभौ । आकार्यामात्युत्रा (त्रां) श्र प्रधानां देशवासिनः अनुमतिं प्रार्थ-
यामास विदितं वोपराक्रमं । सम्मतस्तै स्वधर्मेण गत्वा श्रीनर्मदातटे ।
वस (त्स) रैर्विकमादित्यैः शतैरेकादर्शस्तथा ॥ त्र्युत्तरैर्मर्गमासेस्मि-
नसोमे सोमस्य पर्वते । ज्ञात्वा गुरुचुन्नातः कृत्वादेवच (वार्च) नादिकान् ॥
मणाया सङ्गमे रम्ये मणेश्वर सिवालये । दक्षिणमूर्ति सिवेन मार्गे—

(Reverse)

णोदकपूर्वकं ॥ श्रीधण्टेश्वरदेवाय ग्रामं विलुहज (?) ददौ । घटा—
पल्यां तथा ग्रामे शतं भूमेः सुसोभनं ॥ चतुराघाटनोपेत्तदा
नंभेतददौ श्थिरं । उपकाराय सर्वेषां मत्कपापविहृतये ॥ उ—
दक्षग्राहकः तत्रमहावतधरोमुनि । दिनकरो नाम यः साक्षा—
त्कपालीवं संकरः ॥ एतदत्तं मया दान पालनीयं नरोत्तमैः
सिवस्यधर्ममिच्छाद्विः कल्याणमिहजन्मनि ॥ सामान्योयं
धर्मसेतुः नृपाणा काले काले पालनीयो भवद्विः । सर्वा
नेतान्भाविना पाथिर्वेन्द्रान् । भूयोभूयोयाचतेरामभद्रः ॥
बहुभिर्वेसुधा भुक्ता राजानैः सगरादिभिः । यस्ययस्य
यदाभूमिस्तस्य तस्यतदाफलं ॥ यष्टिः वर्षसहश्राणि

Second plate (Obverse)

स्वर्गे तिष्ठतिभूमिदः । आच्छेताचानुमंता च तान्ये व नरक वसेत ॥
स्वर्णमेकं गवामेकं भूमेरप्येकं मग्नुल (?) । हरनरकमायाति यावदाहृत
संप्लवं ॥ विद्याटवीष्टोयासु सुष्ककोटरवासिनः कृष्णसर्पाभिजायन्ते

भूमिहर्ता नराश्रये ॥ वालस्यान्वय संभूत कायस्थ ऐवलात्मजः सासनं
सोहिको नाम राजाभ्यर्थ (न) या करोत् ॥
उनातिरिक्तमङ्गानाद्वितं सासने त्र यत् । ग्रणाम
मेव कर्तव्यं संतः सर्व सहायतः । मंगलमहाश्रीः ।

TRANSLATION.

"Endless enemies secured fast friendship (of Sindhurāja). From him (Sindhurāja) was born Śrī-Bhojadeva, whose great renown as "chastiser of enemies" was heard the world over. Having burnt the hearts of (his) enemies with the flame of his glory he indeed reigned for a long time undisturbed. There was a devotee of his lotus-like feet (or a faithful follower) a prince (or best of men) (by name) Surāditya, of the family of Śravanabhadra (or of an "illustrious" family), come from Kanyakubja (Kanouj), who, by slaughtering the (enemy) warriors in the battle with Sāhavāhana and also with other princes, made the royal glory of Bhojadeva stable. On account of his doing so and being at the head of waning Suras, his name, which is "Surāditya", indeed becomes him. His son, Śrī-Jasorāja, passing life in the province of Sangamakheṭa (and) being always religious, shone all the more (made a greater name) for his religion (or charity). Having called sons of the Minister and prominent inhabitants he requested (their) consent (thus) : "To you is known the exploits (of my ancestors)". By them being given consent, he went to the bank of the Narmadā and, on Monday, the day of lunar conjunction, in the month of Mārga-(śirṣa) of Vikrama year-three plus eleven hundred, (1103),—having bathed and taken permission (of his) preceptor, worshipped the gods ; and in the beautiful temple of Śiva (called) Maṇeśvara on the confluence of (the river) Maṇā (with the Narmadā) offering (holy) water in the direction of Śiva,

facing the south, granted, to the deity Śrī-Ghanṭeśvara, the village Viluhaja as also charming hundred (acres) of land in the (neighbouring) village (of) Ghanṭāpalli ; (thus) gave this permanent grant (of land) furnished with four boundaries, for the welfare of all (and) or for destroying my own sin. There the person, who accepted the holy water, was a sage of great austerities, by name Dinakara, who was as if Kapilā-Saṅkara incarnate. This grant is given by me and should be maintained by princes desirous of (maintaining) the cult of Śiva and welfare in this life. 'This is the common 'bridge of religion' of kings (which) should be protected by you from time to time' so begs Rāmabhadra again and again of all these future kings. The earth was enjoyed by many kings, Sagara and others. Whatever earth one (gives) that much reward he gets. A giver of land remains in heaven for sixty thousand years. Whoever takes it away by force and who consents (to do that) all those (go to) dwell in hell. By taking away a little gold, a single cow, or even a finger's breadth of earth one goes to hell. People, who deprive (others) of land, come into trouble, (have to wander) in the waterless forests of the Vindhya mountain or are attacked by black serpents living in dry hollows (of tree). The Kāyastha, by name Sohika, son of Aivala, born in the family-Vāla, prepared this grant at the request of the King. Whatever less or in excess is written through ignorance in this grant-(deed), all good people should accept that for helping (the writer). Auspicious Great Glory ! "

THE CAVERNS AND BRĀHMĪ INSCRIPTIONS OF SOUTHERN INDIA.

H. KRISHNA SHASTRI

Our present knowledge of the history of the Southernmost part of the Indian Peninsula, derived mostly from indigenous inscriptions does not extend farther back than the 7th century A. D. The possibility, however, of the existence of a long-standing earlier civilisation and dominion is suggested by references in Aśoka's Edicts to the kingdoms of Cōla, Pāṇḍya and Kēraļaputta¹ bordering on that of the great Mauryan Emperor and to the mutual commercial relations said to have existed between the countries of Pāṇḍu (*i. e.*, Pāṇḍya) and Rome, as gathered from the statements of early foreign travellers. Nearer home we have the further evidence of the epics *Rāmāyaṇa* and *Mahābhārata* and a host of literary references including those of Kātyāyana, Kālidāsa and Varāhamihira, which lead to the same conclusion. Still the data for the existence of a Dravidian civilisation distinct from that of the now-existing superimposed Aryan element of literary, political, religious and scientific thought, is but indefinitely postulated and the evidence in proof thereof scantily put forth. We are asked to look for traces of the ancient Drāvidas of

¹ Professor S. Venkateswara Ayyar, M. A., has stated in his latest contribution to the *Indian Antiquary* that still another Southern country mentioned as bordering on Aśoka's dominions *viz.*, that of Satiaputta must be verified with the country surrounding Conjeevaram which according to the *Sthalapurāṇa* of the place was known as the kingdom of Satyavrata.

Southern India in the Dasyus, Kirātas, Vyādhas, and Śabaras of Sanskrit literature, whose modern representatives are again assumed to be the hill-tribes of the present day with their crude customs and manners. It is not possible to believe that the Dravidian civilisation which, if it deserved that name at all, must have counted in it salient elements such as civil administration, military organisation, commercial adventure, religious forecast and scientific enquiry should have dwindled down into nothing but feticism and the ill-bred lawlessness of the aboriginal tribes of Southern India. Much less would it be reasonable to work back from the rude elements of the present-day aboriginal institutions to arrive at the essentials of Dravidian civilisation. It appears, therefore, more scientific to suppose that the Dravidian elements of civilisation that existed at the time when the Aryans came into contact with Southern India were at once recognised by the conquerors and fast became assimilated with those of the superior and super-imposed civilisation of the latter, the two races becoming largely mixed up, and the uncivilised element in society which must have existed even then, finding shelter only in mountains and forests as it does to this day. Consequently the elements of Dravidian civilisation if any, have to be worked out purely from literature and possibly also from a comparative study of civilised institutions both Northern and Southern. Epigraphical research, too, contributes not a little in this direction as will be recognised in the present paper dealing with the Natural Caverns and Brāhmī Inscriptions of Southern India. Before proceeding to give the preliminary readings of these Brāhmī records and discussing their importance from the standpoint of the Dravido-Aryan

elements that may be contained in them it would be useful to acquaint the reader with a general description of these very interesting monuments, the natural caverns so called.

It is a peculiar physical feature of the Madura and Tinnevelly districts to be abounding in isolated hills, sometimes high and sometimes low, with huge boulders indifferently piled up in all possible positions. The higher ones of these hills generally go by the name *Kalugumalai* from the fact that they afford shelter to kites (Tamil : *kalugu*). High boulders standing on their narrow bases and affording shelter by their expanding tops to the rocky surfaces below naturally make good resting-places for shepherds and other people who might frequent these spots. The existence of large numbers of such boulders form the general characteristic of these hills.

About twenty of such rock-shelters distributed over a wide area in the districts mentioned above, have been discovered to be of considerable antiquarian interest. These may have been once utilised as dwelling-places by their primitive occupants by closing up part or parts of the opening all round, either by mud walls or by rubble. Even to-day the space below these sheltering rocks is often found divided into dark cells by partitions of mud-walls,--of course by resident mendicants who, according to an old tradition, still preserved by them, like to resort to these caverns commanding natural beauty. Common folk, however, connect them with the five Epic heroes, the Pāñdavas of the *Mahābhārata* and consequently call the hills Pañcapāñdavar-malai or Pañcavarkot्तु and the beds Pañcapāñda-varpadukkai, a spot on the Siddharmalai hill near the

village Mēttupatti being even now recognised by the villagers as the seat of Draupadī (!). This tradition significantly reminds us of the analogous Ceylonese tradition regarding king Pañḍukābhaya of the 4th century B. C.

While most of the caverns are at easily accessible heights of the hills, some are almost inaccessible and are reached through steep and narrow ravines. Traces of small foot-holds and holes for fixing supports where necessary, could also be seen in the case of caverns situated at great heights. Invariably the presence of a water-spring seems to have been taken advantage of, in converting these natural shelters into dwelling-places. On the rocky floor below are found numerous beds measuring on the average $1\frac{1}{2}$ to 2 feet by $4\frac{1}{2}$ to 6 feet, dressed and made smooth with pillow-sides slightly raised in most cases. A drain to carry off the rain-water from encroaching on the beds was always cut and a similar cutting was made on the brow of the sheltering rock almost to the full length of its open front to carry off the water running down from the top of the boulder. Below the drip-ledge and generally on a dressed surface are cut the Brāhmī inscriptions—the subject of this paper. In a few cases they are cut on the beds inside the caverns. Along with Brāhmī records, we find sometimes sculptures of either isolated Jaina images or big rows of them with inscriptions in the rounded Tamil character called Vaṭṭeluttu of about the 8th century A. D., cut below.²

² Rocks exclusively occupied by Jaina sculptures and Vaṭṭeluttu inscriptions are not uncommon in the Tamil country.

Who were the authors of these beds and Brāhmī inscriptions? Firstly, it is useful to enquire whether previous to their occupation by the authors of these beds and inscriptions whoever they might be, there had been others who were using them and secondly whether the beds and the inscriptions are contemporaneous. The late Rai Bahadur V. Venkayya was of opinion that the inscriptions and beds were synchronous and we may accept his view since stone beds have been noticed in the Buddhistic caves of Bhājā, Kudā, Junnār, Ajantā and Konḍivte, and since the Brāhmī inscriptions in question are sometimes found written on the beds themselves, as already observed. As regards the first question I may refer to Mr. Parker who in describing the ancient peoples of Ceylon makes elaborate references to thousands of natural caverns or rock-shelters which formed once the abodes of the wild Vaeddas of that island, who, he believes, abandoned them in pre-Christian times just when Buddhists entered Ceylon, and converted these into residences for their ascetics. The Vaeddas themselves are traced by Mr. Parker to the Cōla and Pāṇḍyan Tamils. It is not improbable that as in Ceylon, the natural caverns in the Madura and Tinnevelly districts may have been occupied in pre-Buddhistic times by indigenous aborigines who were perhaps as Mr. Parker suggests, the ancestors of the Vaeddas of Ceylon or similar other wild hill-tribes. One point of difference, however, between these caverns and those of Ceylon is the provision made in the former for stone beds for the use of the Buddhist occupants. Another is that the language of the Brāhmī inscriptions on these caverns far from being purely Buddhistic Pali as in Ceylon, is in a mixed

dialect, perhaps in use among the then inhabitants of Southern India,—the Vaedda ancestors spoken of above. Certain peculiarities of the alphabet too which are noticed below may also distinguish these records from the almost contemporaneous Pali records of Ceylon.

Thirty-one Brāhmī inscriptions selected from eleven different villages are given below in illustration of the remarks made above. There may be a dozen others which have been so far discovered; but these are very much damaged and indistinct. The Madras Epigraphical Reports for 1912, 1915 and 1918 include photo-litho plates of all these records.

I.

MARUGĀLTALAI is a village in the Tinnevelly district about $10\frac{1}{2}$ miles North-east of Palamcottah, on the other side of the river Tāmraparnī. On the Eastern side of the low hill near this village, is a broad cavern formed by a huge overhanging rock sheltering below it a rocky floor on which are chiselled a number of beds at convenient places in four different sections. The cavern measures in length 52 feet, North to South, but is only 8 feet deep. A little below the '*katark*' or water-drain cut on the edge of the sheltering boulder is engraved the inscription subscribed below in clear Brāhmī script of about the 3rd century B. C.,—the characters ranging in height from 1' to 1', 3" the largest size found for the Brāhmī characters with which we are now concerned. There are no sculptures in the cavern as we find in other cases; nor do we find any water spring, in the rocky hollows adjoining the cavern. On some of the beds, however, are cut Tamil letters and

diagrams of a recent date among which may be specially noticed a Pallava lion of the 5th century A. D. which we find also on old coins and copper-plate seals. The Brāhmī inscription was brought to the notice of the Archaeological Department by Mr. L. A. Cammiade in 1906-07 when he was a Divisional officer in Tinnevelly and its importance was recognised and noticed by Rai Bahadur V. Venkayya in his Epigraphical Report for 1907, though four years previous to this a similar inscription was secured by Mr. Venkoba Rao at Kilavalayu near Mēlūr but its importance was not then recognised. I tentatively read the inscription thus :—

Text.

Vē na kō^{2a} si pā nā
 ku tu pi tā k[ā] [la] kā nā
 cha na ma

Remarks.

The word *kōśipānā*, if it has been read correctly may be compared with the skt. *Kāśyapānām* and *kuṭupitā* which often occurs in these inscriptions, with the Tamil *koṭṭuvittāñ* “ caused to be cut ” ; cf. also Childers: *koṭṭeti*.

II.

ĀNAIMALAI is a celebrated place of pilgrimage, only 5 miles from Madura, on the Mēlūr road. It was perhaps evidently so called from the shape of the hill which is prominently seen from several miles to be like

2a. The syllable *kō* has been read directly from the stone. In the impression, however, there is a clear resemblance to *ki*.

a sleeping elephant *āñai* with its trunk hanging down. Almost at the top of its proboscis is a natural cavern with the usual beds cut into it. At the foot of the hill are groups of Jaina figures with inscriptions below them, cut on huge boulders and also one or two abandoned Jaina shrines. The great Śaiva Saint Tirujñānasambandha is said to have crushed the pride of the Jainas who had established themselves at Āñaimalai and other Jaina centres in the South. The cavern containing the Brāhmī inscription is 23 feet 6 inches long and 3 feet and 1 inch high, at its entrance, in the centre. There are several rows of narrow, longish beds, some spreading East to West and others North to South. No sculptures which prove subsequent Jaina occupation are found, for the evident reason that the Jainas had their own distinct quarter lower down the hill. The inscription has been tentatively read thus:—

Text.

[1] I va[m] je nā du³tū u
dai³ yu la⁴] pā⁵] ta na tā nā ē
ri ā ri ta nā
[2] a tā⁶ tu vā yi a ra ṭam
ṭha kā yi pā nā

3 These are letters the formation of which is not found elsewhere. I have suggested the readings *du* and *dai* on the strength of the remarks on the letter *da* made by Dr. Bühler on the paleography of the Bhāttiprōlu inscriptions; *Epigraphia Indica* Vol. II, pp. 323 ff. Still the letters read *du* and *dai* are not certain. They may be conjunct consonants as well.

4 This symbol for *la* occurs occasionally in the ancient inscriptions of Ceylon. But here the letter is rather broad.

5 The letter may possibly also be read as *po*.

6 The clear dot after the letter *tā* is probably to be taken as an *anusvāra*.

Remarks.

This is one of the best preserved of the cavern inscriptions. We have very few doubtful letters here and yet the meaning is not clear. If the fifth syllable has been correctly read we have here the Tamil word *nādu* preceded by the proper name *Ivamje*. Similarly *udaiyu* may correspond to the Tamil '*udaiyān*' a chief. It may be observed also that *eri* in Tamil means "a tank". *Āritanā* like *kōśipānā* of Marugāltālai may stand for the Sanskrit *Hāritānām*. I cannot make bold to suggest that in *tātuvāyi* we may find the Prakrit form for *tāmtuvāya* 'a weaver.'

III

TIRUPPARAṄKUNṄRAM near Madura is celebrated for its temple of Kumāra and attracts large crowds. This temple is a rock-cut shrine bearing an old inscription of about the 8th century A. D., which speaks of the consecration of an image of Jyēṣṭhā Durgā in that rock-cut temple. On the Eastern slope of the hill is the cavern with beds and two Brāhmī inscriptions at a rather inaccessible height. It measures 56 feet in length, North to South and is 20 feet in depth and 5 feet 10 inches in height, in the centre. In another part of the Tirupparaṅkunṛam hill are some more beds cut into the rock but without inscriptions. A full description of the antiquities of Tirupparaṅkunṛam is given in the Madras Epigraphical Report for 1909, pp. 68 ff. The one peculiar feature of this cavern is that it has two low benches cut into the rock in addition to the usual beds. One of the benches measures 5 feet by 1 foot 9½ inches and the other 6 feet by 3 feet. The two Brāhmī inscriptions again are not written on the brow of the cavern but on the pillow-sides of two of the beds.

Text.

[A] Ē ru kſō] [tu ra] i jaṁ⁷
 ku tu ma [pi ka] nā pō
 lā l[ai] ya nā.

Remarks.

The letters in this inscription again are perfectly clear. Ērukōṭura may stand for a place-name like Ērukōṭūr. In kuṭumapika we may, by eliding the vowel on *ma*, get the expression *kuṭumpika* (*kuṭumbika*) which occurs in Pāli inscriptions for 'a husband-man.'

Text.

[B] C h[ā] ya⁸ tā ā ya⁸ cha⁹
 ya⁸ nā nai tu ch[ā]⁹ ta nā.

IV

ARITTĀPATTI. The village which goes by this name is mid-way between Mēlūr, one of the important taluk-towns of the Madura district and the Aлагар்மலை Hills. The hills near Arittāpatti on which the caverns, Pañchapāṇḍava beds and Brāhmaṇi inscriptions are found, are nearly 3 to 4 miles away from the village and belong properly to a smaller village named Māṅgulam and are locally known by the general name of the Kalugumalai Hills. The ascent is through the

7 The formation of this letter again, is very peculiar. Its similarity with the Khālsi Aśokan *ja* given on Bühler's Tafel II-15, 2, is very slight. One can venture to say that it is somewhat like the modern Tamil *la*.

8 These three letters written somewhat irregularly have been read as *ya*.

9 *Cha* in both these cases has a vertical tail below as in the Bhattiprōlu inscriptions.

rocky slopes of the hill, sometimes almost inaccessible. There are as many as five caverns with the usual beds and Brāhmī inscriptions on the Eastern slope of the hill. The long inscription in the lowermost cavern is not written on the brow of the overhanging boulder but on another which forms the back wall of its northern portion. The floor of the cavern is sandy and hence no beds are found in this cavern. The southern part of the cavern extends to a depth of 49 feet 5 inches between two boulders that serve as walls. The entire length of the cavern which is a curve, is 58 feet and the height at the opening is 11½ feet roughly. The *katark* on one of the upper caverns is missing and another with two short Brāhmī inscriptions there are as many as 31 beds both inside and outside, on a projecting platform. One of the beds in front of this last cavern measures 7 feet 8 inches by 5 feet and is on a higher level than the others and occupies a central position. The inscription in the lowest cavern, which is the longest so far discovered, is read thus :—

Text.

[A] Kā ḥi¹⁰ ya n[ā]¹¹na tā si
 ri ya ku a nā dha mā ma
 i tā na t̄i ūnā chā t̄hi ya
 nā sā l [ā] kā nā i lā ūnā
 chā t̄i kā nā tā na tai ya
 chā t̄i kā nā chē i yā pā
 li ya.

10 There appears also a vertical stroke attached to *na* at the bottom like the medial *u*-sign.

11 Length of *nā* throughout these inscriptions is generally of the Bhaṭṭiprōlu type.

Remarks.

The only observation that might be made here is the occurrence of the expression *chāṭṭhiyānā* once and perhaps, its variant *chāṭikānā* twice. Can *che i yā* at the end stand for *chaityāni* and *pāliya* for *pālyā*? If so, these would be some at least of the Prākrit words in the inscription. The three possible words *siriyaka*, *siriyaku* and *yakāśitikā* which occur in this and in B and E below, include in them the word *yaka* (=yakṣa) which is not uncommon in Buddhist names. We find again *yakānā* in 10 (C) below. Mr. Parker believes that the *yakas* (=yakṣas) are to-day represented by the Vaeddas of Ceylon. The other inscriptions are:—

Texts.

- [B] Ka [ra] ni ra n[ō] tā si ri ya ka [rū]
- [C] ¹²Ch[ā] na tā ri tā nā ko tū pi tō nā
- [D] Ve la a dai ni kā mā tō ra ko ti [o ra]¹³
- [E] [Ve] la [a] [dai] ya ni kā mā t[ā] ko
[pō] ti ra [ya] kā sī ti kā a [ri te] a
sā tā nā pi nā ka ko tū pi tō nā

Remarks.

The expressions *Velaadainikāmā* and *Velaadaiyani-kāmā* occur in both D and E above. The extra syllable *ya* of the latter may be compared with the superfluous consonant *y* which occurs frequently in Tamil inscriptions after syllables ending in medial *ai*. *Koṭūpitōnā*

12 There seem to be three dots before *cha* arranged like the Aśōkon letter *i*; but it is highly doubtful if they have to be taken so.

13 The letters *a* and *ra* are engraved so close to each other that they may also be read as a broadly formed *la*.

similarly occurs in both C and E and has to be connected, as already pointed out, with the root *kotu*. *Nōtāsiriyaka* of B occurs as *natāsiriyaku* in A.

V.

Between KĪLUR and KĪLAVALAVU, nearly 7 miles from Melūr on the road to Tiruppattūr, on a low hill with huge boulders, are seen some caverns containing the usual Pañchapāṇḍava beds and inscriptions. Numerous Jaina figures¹⁵ with Vatteluttu inscriptions below them, are cut into the rock near one of these caverns. The naked Jaina figures are interpreted by the local people as 'school-children'; and the whole spot is connected by them with a school that is supposed to have once existed here. The Brāhmī inscription was discovered by Mr. Venkoba Rao as early as 1903 and is about 15 feet from the ground-level of the cavern. The letters are written upside down and are boldly cut. Mr. Parker refers to an old Brāhmī inscription on one of the Tevāndāṇ Puḷiyaṅgūlam rocks in Ceylon which is written upside down and which he quotes as the first instance of what is known in Ceylon as the *Paeraeli Bāsā* or transformation of letters in written or spoken words. In interpreting it he says that the letters must be read from right to left. It is doubtful if this latter principle applies also to our inscription. It reads thus:—

Text.

ū pā [ch]ā a pō te¹⁶ na ṭu lā vō chhō
ko¹⁶ ṭu pā | i ī

¹⁵ This must have been a strong centre of Jaina influence like Āṇaimalai.

¹⁶ The two letters *te* and *ko*, however, are in the correct position with reference to the reader from the ground.

Remarks.

It may be noted that *ūpāchāa* at the beginning seems to suggest the Prākrit form of *upādhyāya* and *vōchhō* is likewise synonymous. We have been familiar also with the root *koṭu*; and *pālii* is perhaps comparable with *pāliya* in [IV] (A) above.

VI.

KARUNGĀLAKKUDI is a village 8 miles north of Melūr on the Trichinopoly road. The caverns and beds on the hill near this village are of special interest as, besides the usual Brāhmī inscription which is transcribed below, there is a Vatteluttu inscription in Tamil verse cut on one of a row of rocky beds in a cavern higher up on the same hill, which states that a certain chief Pallidaraiyan rendered service in different capacities to his master, the Pāṇḍya king (Valudi or Mīnavan) first, by building a bright *vimāna*, then by stopping the sea from encroaching, by protecting sacrifices at Tiruppodiyil, by his scholarship, asceticism and saintliness (?). There is an apparent reference here, to the sage Agastya whose intimate connection with the Pāṇḍyas, the Podiyil mountain and Tamil literature is well known. The age to which Pallidaraiyan and his master, the Pāṇḍya king, belonged, cannot be determined at present. The Vatteluttu characters, however, suggest a period approximating to the 9th century A. D. One interesting inference which this short inscription leads to, is the evident fact that the beds in the natural caverns were used not only by Jaina saints but also by laymen twelve hundred years ago, as is done by the mendicants of the present day.

The cavern with the Brāhmī inscription measures 33 feet East to West and 33 feet North to South opening both on the southern and western sides. On a rock, opposite to the cavern on the West, is engraved a Jaina image with a Vaṭṭekuttu inscription below it, which invokes the teacher Ajjanandi. The Brāhmī inscription reads as follows :—

Text.

[E] ṭhu ya r[u] ra a ri ti¹⁷ nā pā li

Remarks.

The first five syllables which end in *ura* may constitute the name of a village. *Pāli* occurs in IV (A) and V, above.

VII.

MUTTUPPATTI is a small hamlet about 10 to 12 miles from Madura on the Madura-Tirumangalam road. The last of the hills of the Ummanāmalai range which runs parallel to the road on its left side, has a cavern measuring 43 feet East to West, 26 feet deep (on the east side) and about 5 feet high. There are several beds and five Brāhmī inscriptions two of which latter are highly damaged and cannot be read. Two Jaina images cut just above the brow of the cavern have no inscriptions below them. The three legible Brāhmī inscriptions might be read thus :—

Text.

[A] Vi na tai ū ra

[B] Chai ya a !a nā

[C] Kā vi ya

¹⁷ Between the syllables for *ti* and *nā* the estampage shows a symbol (?) somewhat like that of the mark of interrogation. It may only be a clumsy slit on the stone or may be read as a damaged Aśōkan *kha*.

Remarks.

As in other cases A, which ends in *ūra* may be the name of a village.

VIII.

SIDDHARMALAI is a hill near Mettuppatti not far from the Pēraṇai Dam in the Nilakkōṭṭai taluk of the Madura district. It contains a specious cavern which measures no less than 297 feet in length and 6 feet 8 inches in height with stone beds and a small shrine enclosed by modern railings for a pair of sandals raised on a platform. The beds which are in two rows have each a pillow-loft with a Brāhmī inscription at the headside. Between these two rows of beds there is another that extends from South to North with an inscription in later Grantha characters. Over the brow of the cavern just above the shrine containing the sandals is a Tamil inscription which refers to these as the sandals of Sahajānandanātha, a Tāntric writer of about the 14th century A. D. The Brāhmī inscriptions are read thus:—

Texts.

- [A] Pō ti nā [ū] ra a tā^[17a] [nā*]
- [B] Ku vi rā a [na] tai ve ya a tā nā
- [C] Ku vi rā a na tai ve [ya]¹⁸ a tā nā

17a It may be observed that in the letter *tā*, the two lower prongs of which the one on the proper right is generally straight and the left, somewhat curved, have been reversed.

18 This syllable must be *ya* since we have the same expression *ve ya* in B above clearly expressed. In this case, however, it deserves to be noticed that the right half of the letter has been omitted and the whole looks like the modern Nāgari १ without the top stroke.

- [D] Ti ṭō ī la a tā nā
- [E] A na tai a ri ya
- [F] Ti a na tai [ī ra] vā ta nā
- [G] Ma dhi r[ā] a na tai [vi]¹⁹ su vā nā
- [H] Chā na tā na tai chā na tā nā
- [J] A na tai v[e] na tā a tā nā

Remarks.

Nos. B and C are identical. *Pōtināura* of A possibly contains the name of a village. *Atānā* occurs in 6 of the Siddharmalai inscriptions, one of Koṅgar-Puli-yāngulam noticed below and 2 of Alagarmalai (*seq.*) *Anatai* occurs seven times in the Siddharmalai inscriptions. Rai Bahadur V. Venkayya has tried to explain in his Epigraphical Report for 1908 (p. 59) *anatai ariya* (E) as 'the dwelling place of the Buddhist saints.'

IX.

KOṄGAR-PULITĀNGULAM. This is a village on the 11th mile from Madura, on the Madura-Tirumangalam road. On a low range of hills about 200 yards to the North-East of the village and at a height of about 25 yards from the hill, are three huge boulders forming natural caverns below them. They are now used for shelter from sun and rain, by shepherds and their folds. The caverns extend from East to West for a length of about 297 feet. The greatest depth is 55 feet 9 inches and the height 6 feet 9 inches near the inscribed brow. Higher up on the rocks are some Jaina figures and a Vaṭṭeluttu inscription. The Brāhmī inscriptions read thus:—

19 The letter *vi* is incomplete on the impression.

Text.

- [A] Ku ṭū²⁰ ko ṭu pi tā vā nā ū pā
chā a nā [ū] pā [ṭū]²⁰ va^(20a)
- [B] Pā kā nā ū ra pē t[ā] t[ā] nā pi
ṭā nā ī ta tā ve pō nā
- [C] [Ku] ṭ [ū] kō ṭā la ku [ī] ta tā vi
nā chē ṭū a t[ā] nā lē nā

Remarks.

KUTŪ which occurs in A and C is perhaps the same as *kuṭu* of Triupparaiküṇram [A]. *Koṭupitā*, *kuṭu*
pitā, *koṭupitō*, are all connected with each other and with the root *koṭu*. The five syllables ū pā chā a nā may suggest the Sanskrit *upādhyāyānām*. Itatā of B may also be noted to be the first element of the word *itātārinā* of C. The five syllables pā kā nā ū ra of B may be compared with the name of an old territorial division called *Pāgañru-kūrṛam* which, however, was to the North of Madura. Lēnā in C may be the Pāli *lēna* (*layana*) 'cave.' If so this will be the one clear Pāli word found in these inscriptions. Of the two symbols of punctuation which occur in B and C, the latter is found also in early Ceylon inscriptions (Parker's *Ancient Ceylon* plate p. 446).

X.

ALAGARMALAI. This is the highest hill on which we find caverns, beds and Brāhmī inscriptions. Those on the other hills may not be said to be at any

²⁰ The letter ṭū which occurs twice in this inscription shows two different forms of the medial ū sign.

^{20a} It is not unlikely that this last letter is part of a punctuation which we find in the case of the two other inscriptions from Kosigar Puliyāṅgulam.

great height though in most cases they are also inaccessible. The inscriptions here are 8 in number. One of those is written on the pillow-side of a stone-bed. The rest are on the chiselled brow of the sheltering rock which is nearly thirty feet above the floor. In the cavern is an image of Ajjaṇandi with the usual invocatory Vaṭṭekuttu inscription below it. There is a natural spring of water in one corner of the cavern. The approach to the cavern which is most difficult is through a thick jungle and narrow ravines intercepted by steep rocks. The inscriptions read thus:—

Texts.

- [A] Mā [ta] ti [rai].yi pō nā ku la vā nā a
[ta] nā a t[ā] nā
- [B] M[ā] ta ti rai ko [pā] pu vā ni ka nā
- [C] Ya kā nā kō ḥa ti kā nā
- [D] Kā ḥa ka a t[ā] nā m[ō] ka nā a ta nā
a tā nā
- [E] Sā [ma] mi si nā²¹ mi ta ti
- [F] Ru²¹ pā ni tī vā ni [ka] nā na du
ma lā nā
- [G] [Vā ni] ka nā yu ḥa nā ta nā
- [H] Chi ka t̄ha mā tū na tā nā tā ra a
ni y[ā] k[o] tū pō tā a va nā
- [J] A nā ka nā nā

Remarks.

The expression *Mātātirai* occurs in both A and B, the former giving as in Nos. IV (D) and IV (E), an extra consonant y after *rai* which is a feature of Tamil

21 Between the letters *nā* and *mi* there is space for one letter which has been left blank. The same is seen between the syllables *ru* and *pā* of F.

orthograghy. *Vāṇikanā* appears in B, F and G. Probably this has to be connected with Sanskrit *vāṇik* or Tamil *Vāṇiyāṇ*. Of the symbols used here for punctuation the *svastika* is familiar. Inscriptions H and J are fragmentary since they do not end with any mark of punctuation.

XI.

ŚITTANNAVĀŚAL is a village about 22 miles from Pudukkōṭṭai bordering on the Madura district. The high hill near it contains a cavern with beds described in the Annual Report on Epigraphy for 1915. The spot where the cavern lies, is known as *ēladippāṭtam* on account of the seven (*ēlu*) square holes in the steep rock which are used as steps in reaching it. The Brāhmī inscription is written on two sides of one of the seventeen beds in the cavern. It is read thus:—

Text.

E u mi nā t[u] ku mu t̄ha [ū] ra
 pi dā na tā kā vu t̄ i i te nā ku
 chi t̄ū pō chi la i lā ya ra che ya
 tō a ti t̄a a nā ma

Remarks.

Here again *nātū* and *ūra* might indicate the district and village names respectively.

CONCLUSION.

From the remarks made above it would appear that words like *kuṭupitā*, *koṭupiṭō*, *koṭupitā*, *kuṭū*, *nādū*, *uḍaiyu* and *ēri* and the adding of a superfluous *y* after words ending in medial *ai*, point to what may be called the Dravidian element in the language of these inscrip-

tions. In arriving at the proper interpretation of these records it may also be necessary, as in Tamil, to take some at least of the consonants as basic (*i. e.*, *ardha-akṣaras*) as of course we have to treat the palatal *ñā* in *kālakāñacha* in No. I and *tiñachāṭṭhi* and *ilāñachāṭi* in No IV A. The words *ūra*, *ora* or *ura* in *Erukōṭura*, *Eṭhuyaura*, *Kotiora*, *Vinataiūra*, *Potināūra*, *Pākānāūra* and *Kumutṭhaūra* and the words *nāḍu* or *nāṭu* in *Ivam-jenāḍu* and *Eumināṭu* are apparently Tamil.

The words *kōśipānā*, *āritanā*, *kuṭumapikanā*, *chēiyā*, *pāli*, *pāliya*, *pāli*, *ūpāchāā*, *ūpāchāand*, *vōchhō* and *lēnā* similarly, represent the Prākṛit element of these records, more or less clearly expressed. The numerous words ending in *nā* in all the inscriptions may be taken to be the genitive plurals ending in *nāṁ* *e. g.*, *Sāvatīyāna*=*Śrāvastīyānām*. With reference to *kālakāñcha* in No. I it is worthy of note that *kālakañjaka* according to Childer's *Pāli Dictionary* is a 'sort of *Prēta*' and *Kālakañja* according to Monier Williams is the 'name of a Dānava family.' The words *Sālākānā* and *Chāṭikānā* appear to be connected with the Pāli words, *salākā* and *chāṭi* the former of which means 'a ticket for food given to Buddhist monks' and the latter 'an earthern vessel.' *Kulavānā* may likewise be connected with *kulava* 'a member of a high family.' *Nikāmā* which occurs twice in the *Ariṭṭhāpaṭṭi* inscriptions may possibly stand for *nigama* or *negama* which in Pāli means 'a mercantile guild.'

One other point which lends these inscriptions a purely southern characteristic may also be noted. It is its paleography which often resembles the alphabet of the ancient inscriptions of Ceylon and in some cases the *Bhaṭṭiprōlu* casket inscriptions. In a few

other cases, again, they supply an exclusively new type. The symbol \div for instance occurs ten times in these inscriptions. For the first time it has been found hitherto only in the Kshatrapa and Andhra inscriptions of the 1st century A. D. But the symbol occurs in the ancient Brāhmī inscriptions of Ceylon where, however, it is read as short *i*. The modern Tamil *i* is quite similar to it and is very probably derived from it. Two forms of *ja* occur. One is the regular type found in the Brāhmī inscriptions of Asōka and the other is the one with a loop in the middle formed somewhat like the Kālsi *ja* but still different from it. This rare form occurs in the Tirupparankunram inscription only. The length of *na* throughout is after the Bhāttiprōlu type. The letter *ma* which is formed with the *u-like* tube opening upwards with a cross line about its middle, is quite peculiar to these cavern characters and is found again only rarely in the Brāhmī inscriptions of Ceylon. The Dravidian *la* which occurs 7 times in these inscriptions does not at all figure in the Northern Brāhmī inscriptions but is occasionally met with in the ancient inscriptions of Ceylon. The letter *ttha* (written actually as *thta*) occurs thrice in these inscriptions and is the only double consonant found in them. The symbol for *da* is quite peculiar and is found nowhere else except in these inscriptions.

I have nothing more to add to this imperfect paper but to request the scholars congregated here to pay their earnest attention to these new inscriptions of Southern India and to arrive at an indisputed interpretation of them which if done, must, I am sure, set at rest the hypothetical theories about the antiquity of the Drāvidas and Dravidian civilisation, which is so much discussed.

ANCIENT HISTORY.

DATE OF CORONATION OF MAHĀPADMA
BY
HARIT KRISHNA DEB.

The most systematic literary account of the dynastic history of India during the period following the Bhārata war is to be found in some of our Purāṇas. In concluding their dynastic account, the three earliest Purāṇas, the Matsya, Vāyu and Brahmānda, assert that the account has been carried down to the 836th year (elapsed) "after Mahāpadma" (*Mahāpadmāntare* or *Mahāpadmottare*).¹ This expression should be understood to be equivalent to "after Mahāpadma's coronation." ; for, the preceding verse counts back from that king's coronation, showing that this event, and no other, has been taken here as the pivot of reckoning. I propose to attempt, in this paper, to arrive at a definite date for this important event.²

The best way in which we could do it would be to try to determine the Christian equivalent for the last definite date given in the Puranic chronicles, namely, the 836th year after Mahāpadma's coronation. This year must fall somewhere about the fifth century A.D. For, in the first place, the Greek notices leave no room for doubt that the Maurya dynasty had already been established before the end of the fourth century B.C. ;

I Pargiter, *Dynasties of the Kali Age*, Oxford 1913, p. 58, 5-10.

2 A notable attempt has recently been made by Mr. K. P. Jayaswal in JBORS, June 1917. I have much pleasure in acknowledging that a perusal of Mr. Jayaswal's paper prompted me to examine the problem for myself, with the result embodied in my present essay.

secondly, Aśoka, the third Mauryan king, refers in one of his inscriptions to five Greek princes one of whom, Magas, reigned in Cyrene from c. 300 to c. 250 B.C.³ Since the tenure of power by Mahāpadma's dynasty could not have lasted longer than a century, and may have endured only for forty years as certain MSS. of the Vāyu assert,⁴ the coronation of Mahāpadma must be placed approximately within the hundred years comprising the latter half of the 5th century and the first half of the fourth century B.C. ; and 836 years after that would take us down to about the 5th century A.D.

Now, I do not think that the authors of the Purāṇas were oblivious of the fact that their chronology would be meaningless if not referred to some era. Several eras were in existence in the 5th century A.D.,⁵ and we should be surprised if Indian historians of such a late period, setting their hands to the task of giving an account of kings and their reigns in a sober and systematic form, free from all glamour of mythology, allegory and rhetoric, evolved a chronicle without an intelligible chronology, without any reference to a definite point of time with which the people of those days might be familiar. It may be said that the eras then in use were mostly established by some particular kings, and the adoption of any one of their reckonings would have endowed the account with a political complexion, with a bias hardly befitting the impartial historian. But there was one era not open to this objection. This was the *laukika* era used by Kalhana in his Rājataranginī, the only known regular book of history, as understood in Europe, in the Sanskrit

3 JRAS, 1914, p. 945.

4 Pargiter, *op. cit.*, pp. 25-26,

5 e.g., Vikrama, Śaka, Kalachuri, Gupta.

language. Kalhaṇa knew the Śaka era : he gives the equation for converting his laukika years into the corresponding Śaka years ; yet he adopts the laukika in preference to the Śaka era in his chronology of the kings.⁶ This preferential procedure, as well as the fact that the Kashmir chronicler begins to give his dates according to the laukika reckoning as soon as he is able to present a reliable, dated history, shows that in the Middle Ages Brahmanical history-writers employed the laukika era in their chronology. Kalhaṇa's first recorded date corresponds to the year 813 A.D., expressed by him as the 89th year of a laukika century ;⁷ but the custom of dating kings according to the laukika era was very probably quite archaic in Kalhaṇa's time, since Kalhaṇa admits having borrowed his materials from earlier historians,⁸ and there is no reason to believe that in adopting the laukika era he was departing from well-established usage. In fact, his reference to his own period in terms of Śaka and laukika years and to the periods of the kings in terms of the laukika era only cannot be explained except on the supposition that the latter was the orthodox reckoning, at any rate in historical chronology. The custom may well have existed at the time the earliest Purāṇas received their present form. As the Purāṇas were meant for popular reading, the *laukika* or 'popular' era would be eminently suitable for employment in Purāṇic chronology. Moreover, one name for the laukika era is *Śāstra-samrat*, that is to say, 'the era

6 Stein, *Kalhaṇa's chronicle of Kashmir*, vol. I, introd., para 56.

7 Ibid, vol. I, p. 183, v, 703.

8 Ibid, introd., paras 21-23.

9 IA XX, p. 152.

[F. O. C. II 45].

used in the Śāstras' ; and the Purāṇas, certainly are Śāstras requiring the use of an era. Now, it is remarkable that, immediately following the statement that the dynastic account should be considered as coming down to the 836th year after Mahāpadma, is to be found, in the Matsya, Vāyu and Brahmānda Purāṇas, an exposition of the Saptarshi reckoning¹⁰ which is identical with the laukika reckoning. It is difficult to resist the inference that the object of this juxtaposition is to indicate that the account has been carried down to the end of a Saptarshi centennium ; in other words, the 836th year after Mahāpadma's coronation is nothing but the last year of a laukika or Saptarshi century.

Such an inference being acknowledged, it is easy to show that this Saptarshi century corresponds to the hundred years 324-424 A.D. For, no other Saptarshi century will preserve the Graeco-Indian synchronisms alluded to above. Take for instance the century 224-324 A.D. ; Mahāpadma's coronation would fall in 513 B.C. ; and since his dynasty did not last more than a hundred years, Chandragupta would come to the throne in 413 B.C at the latest, which is impossible. Take again the century 424-524 A.D. ; Mahāpadma would be crowned in 313 B.C., and since his dynasty did not last less than forty years, the earliest date for Chandragupta's accession would be 273 B.C., which is inadmissible. The year 424 A.D., the last year of the Saptarshi century 324-424 A.D., corresponds, therefore, to the 836th year after Mahāpadma's coronation, which event should consequently be assigned to the year 413 B.C.

We have another set of data yielding the same result. The Purāṇas, in introducing their dynastic

¹⁰ Pargiter, *op. cit.*, pp. 58-59.

enumeration, declare their object to consist in the presentation of the dynastic history of the Kaliyuga.¹¹ The accounts close with the statement that the end of the Kaliyuga 'will be' reached.¹² Here the future tense should not be taken too literally; for, it is only in conformity with the Historical Future used throughout the enumeration from Adhisimakṛṣṇa Paurava downwards, being, in this respect, analogous to the Historical Present tense employed by Western historians even to this day. Towards the end of the chapters in Matsya and Vāyu¹³ which quote the dynastic account from the Bhaviṣya Purāṇa occur some verses developing the yuga-theory and bringing it into connexion with the seven Rishis and the Lunar and Solar dynasties. The *bhaviṣya* technique could here be set aside. Consequently, we find it explicitly stated in Matsya, 273, 59—

Kṣīṇe Kaliyuge caiva tiṣṭhantiti Kṛte yuge...¹⁵ i. e. "The Kaliyuga having passed by, (the seven Rishis) are in the Kṛtayuga...";

and verse 76-77 of the same chapter employ the past tense
 aṣṭāvimsasamākhyātā gatā Vaivasvatīntare
 etc devagaṇaiḥ sārdham śiṣṭā ye tān nibodhata
 catvārimśat-trayaś-caiva bhaviṣyāste mahātmanāḥ
 avaśiṣṭā yugākhyāstu tato Vaivasvataksayah.¹⁶

i. e. "The 28 intervals (=the 28 caturyugas) within

11 Ibid, p. 2.

12 Ibid, p. 56.

13 The Bangabāsi editions of the Matsya and Vāyu Purāṇas are referred to in my text and notes here.

14 Mt. ch. 273; Vā. ch. 99.

15 Cf. Vā. 99, 441, where *tiṣṭhantiti* has been changed to *bhavisye tu*, still conforming to the 'future' technique.

16 Cf. Vā. 99, 459-60. The word *ksayah* occurs corruptly as *hyayam* in Mt.

the Vaivasvata period *have already passed away* : these, together with the dāvas (have passed away). Hear what remain : 43 future (yugas)...then will come the end of the Vaivasvata (manvantara, consisting of 71 caturyugas)". Clearly, therefore, the last definite date in the Puranic account—the 836th year after Mahāpadma's coronation—is the same as the last year of the Kaliyuga of the 28th caturyuga in the Vaivasvata manvantara.

Again, according to the Purāṇas, the beginning of the Tretāyuga is the starting-point of History. The Mārkandēya Purāṇa, for instance, speaks, in canto XLIX, (ed. Pargiter) of the first stage of man's life as belonging to the sky. "Those kalpa-trees were produced which are called houses, and they brought forth every kind of enjoyment to those (people). At the beginning of the Tretā age, the (people) got their subsistence from those trees...Afterwards, in course of time, those (people) grew covetous ; besides, their minds being filled with selfishness, they fenced the trees round and those trees perished by reason of that wrong conduct on their part. Strife sprang up in consequence ; their faces felt cold and heat and hunger. Then, for the sake of combination and resistance, they made towns at first ; and they resorted to fortresses...and they first made measures intended for measurement...they also (constructed) the pura, the khetaka...and the grāmas. And trees and shrubs bearing flowers and fruit in their seasons were produced. This manifestations of vegetation appeared first in the Trētā age." The Matsya, in chapters 142-143, like the Vāyu in ch. 57 and the Brahmāṇḍa in

¹⁷ Brāhmaṇḍa Purāṇa, edited by Debendra Nath Basu, Calcutta, B. S. 1302.

chs. 61-62,¹⁷ also asserts substantially the same thing in regard to the Tretā age ; and these authorities further inform us that the Vedas were collected (*samhata or samhita*) in the beginning of Tretā, that the varna-system was established in the same yuga, that kings were created first in the Tretā age.

When the Purāṇas say that orthodox history is traceable to the beginning of the Trētā yuga, we may be sure they are referring to the Trētā yuga of the 28th caturyuga in the Vaivasvata manvantara. The first six manvantaras have no relation to history proper : the Purāṇic accounts of their presiding Manus are extremely laconic and partake of the nature of folklore. Each one of these Manus is credited with ten sons ; but the sons are not of this earth. It is only the Vaivasvata Manu whose sons belong to our world. This is indicated by the use of the word *bhuvi* in connexion only with them in the Matsya description of the Manus (ch. 9). According to the Vāyu (ch. 62), it was during the Vaivasvata period that corn-cultivation, preservation of cattle, commerce, towns and villages were made possible. The first 27 caturyugas of the Vaivasvata manvantara are as conventional as the manvantaras themselves. All the three Purāṇas, the Matsya, Vāyu and Brahmānda, enunciate the principle : whatever happens at a particular period in any yuga happens at the corresponding period in every such yuga.¹⁸ Such a cyclic march of events being assumed, it was easy to carry imagination back over any length of time. There would be no harm, from this standpoint, in imagining the day of the Pitris, called *divya*, celestial, as comprising 360 human or

18 Mt. 144, 103; Vā. 58, 116; Bd. 63, 118.

ordinary days, or in applying the divya calculation to the 12000 years pertaining to a caturyuga. The conventional character of the divya reckoning is fully established by its association, in Puranic accounts, with such expressions as *mānuṣenā sañjnītah*, *prakīrtitah*, *kuvayo viduh*, *āhurmanīśīnah* as well as by the unequivocal statement—

divyenaiva pramāṇīna yugasāṅkhyāprakalpanam¹⁹. We are not surprised, therefore, to find in ch. 32 of the Vāyu an account of the yuga-periods without any mention of the divya mode of reckoning. It is thus quite clear that not till we come down to the Trētā-yuga of the 28th caturyuga of the Vaivasvatamanvantara can we tread on solid ground; and that we must set aside the divya convention for purposes of plausible history. It may not be out of place to mention in this connexion the fact that, in astronomical treatises of the Siddhānta variety, the calculations are based on yuga-periods;²⁰ and it seems to be quite in keeping with tradition that the Sūryya Siddhānta should represent the science of astronomy as having been received by the Sun at the beginning of the Trētā-yuga of the 28th caturyuga of the Vaivasvata manvantara, employing, however, the divya standard of reckoning which met astronomical requirements. Astronomy is the earliest of sciences, and its history is intimately associated with the history of human civilisation; Man's first study betook itself to the twinkling stars, the sun, the refreshing moon, and Heaven's light was his guide.

The interval between the beginning of Trētā and the end of Kali being one or $(3600 + 2400 + 1280)$ or

¹⁹ Mt. ch. 142; Vā. ch. 57; Bd. ch. 61.

²⁰ JASB, 1884, p. 261.

7280 years, the acceptance of the date 424 A.D. as marking the end of the Kaliyuga and coinciding with the 836th year after Mahāpadma involves the carrying back of the traditional beginning of orthodox history as handed down through the Purāṇas to the year 6777 B.C. There is evidence to show that this was precisely the date assigned to the same terminus as early as the 4th century B.C. Pliny, quoting from Magasthenes, says that the Indians reckoned from Bacchus to Alexander the Great 154 kings who reigned for 6451 years and 3 months.²¹ Quoting this passage, Cunningham observes : "As Alexander entered the Punjab in 326 B.C., and left it towards the end of the same year, this account fixes the starting-point of Indian chronology to the year 6777 B.C."²² Arrian says : "From the time of Dionysus to Sandracottus the Indians counted 153 kings and a period of 6042 years, but among these a republic was thrice established...and another to 300 years, and another to 120 years."²³ The lacuna renders Arrian's figures inutilisable. We may suspect, besides, the accuracy of Arrian's figures as compared with those of Pliny; for, the latter gives even the fraction of a year in the total, and Arrian's round number "300 years" does not admit of easy belief. Pliny's figures are confirmed by Solinus²⁴ and take us down to Alexander whose precise date we know ; whereas Arrian speaks of a period down to Sandracottus whose exact date we do not know. We need not hesitate, therefore, to

²¹ M'Crindle, *Ancient India* (1901), p. 108 ; Pliny, *Nat. Hist.* VI, 17.

²² *Book of Indian Eras*, p. 15. C. was, I believe, the first to connect this date with the Saptarshi reckoning.

²³ IA, VI, p. 250.

²⁴ *Ibid.*

accept the figures of Pliny in preference to the vague and incomplete datum of Arrian.

Arrian, however, has preserved some details of the popular legends connected with this traditional beginning of Hindu history: "But when he (Dionysus) was leaving India, after having established the new order of things, he appointed, it is said, Spatembas, one of his companions, the most zealous of his imitators (or the most conversant with Bacchic matters) to be the king of the country, and that when Spatembas died his son Boudyas succeeded to the sovereignty."²⁵ Spatembas and Boudyas evidently stand for *Svāyambhuva* and *Budha*, as already conjectured. We may thus feel assured that Megasthenes' information regarding the starting-point of Indian chronology is bound up with some form of Purāṇic legend,—a conclusion fortified by the fact that the chronology of the Purāṇas, like the chronology of the Indians as recorded by Megasthenes, is based upon the reign-periods of successive kings,²⁶ both the accounts being in this respect radically at variance with the standpoint of astronomers like Varāhamihira who flourished in the 6th century A. D. and placed Yudhiṣṭhira nearly ten centuries earlier than the date assigned to that king by the authors of the Purāṇas.²⁷ The basic identity of the two chronological systems, one represented by the Purāṇas and the other by Megasthenes, guarantees the accuracy of the inference that 6777 B. C. corresponds

²⁵ Ibid, p. 249.

²⁶ Solinus says: ".....the calculations being made by counting the kings who reigned in the intermediate period, to the number 153.

²⁷ *Brhatsamhitā*, ch. 13, 3. See also C.'s remarks in *Book of Indian Eras*, pp. 8 ff.

to the traditional beginning of the Tretā yuga as contemplated in Purāṇic literature. The resulting scheme of chronology is—

Tretā	-	6777 B. C.	-	3177 B. C.
Dvāpara-	3177 B. C.	-	777 B. C.	
Kali	-	777 B. C.	-	424 A. D.

Let us put this result to some rough tests.

The Purāṇas say that the originally single Veda was divided into four parts in the Dvāpara yuga,²⁸ i. e. between 3177 and 777 B. C. This result is in sufficient agreement with the conclusions of Western scholars in regard to the age of the Vedas. The redaction of Purāṇic literature and its division into eighteen parts is also assignable to the Dvāpara yuga as asserted in the Purāṇas.²⁹ For, the Matsya and Vāyu Purāṇas, in their dynastic account of the post-Yudhiṣṭhīra period, use the present tense in enumerating three contemporary kings of the three principal dynasties,³⁰ and these three kings are removed from Yudhiṣṭhīra by four or five generations; so that the age of composition of the original Purāṇas initiating the dynastic account must be considered to lie in the 14th or 13th century B. C., because Yudhiṣṭhīra, according to the Purāṇas, flourished a thousand and odd years before Mahāpadma.³¹ This inference may seem to conflict with the idea that the Kali age began with the death of

²⁸ Mt. ch. 144; Vā. ch. 58; Bd. ch. 63.

²⁹ e.g., Mt. ch. 53.

³⁰ Viz., Adhisīmakaṛṣṇa Paurava, Divākara Aikṣvāku and Senājīt Bārhadratha.

³¹ Pargiter, *op. cit.*, p. 58. The enumeration of the subsequent kings had to be made in the future tense, the other two tenses having been appropriated already.

Kṛṣṇa.³² The fact, however, that the Purāṇas, setting out to give a dynastic account of the Kali Age (1200 years),³³ actually treat of a period extending over more than 18 centuries (1015 or 1050+836 years) shows that they admit more than one standpoint from which the Kaliyuga might be viewed. One view would make Kali begin with Kṛṣṇa's death; another would assign its end to the 836th year after Mahāpadma's coronation. That the former was an old view is proved by the statement in the Bhāgavata—

yasmin Kṛṣṇo divam yātah tasminnēva tadāhani
pratipannam Kaliyugam iti prāhuh purāvidah.³⁴

It seems to have been the view adopted by the earlier Purāṇakāras; for, a summary of the contemporary dynasties from Parīkṣit to Mahāpadma is inserted just after the enumeration of these dynasties which are stated in the Matsya to have lasted *yāvat Kali* (altered in Vāyu to *tāvatkālam*).³⁵ The other view is connected with the date 6777 B. C. as marking the initial point of traditional history and identified with the beginning of the Tretāyuga. The simultaneous adoption of both these reckonings by the later Purāṇakāras resulted in an overlapping of about seven hundred years; Kali beginning, according to one view, in the 15th century B. C., and according to another, in the 8th century B. C. That such a composite standpoint was in truth adopted by the editors of the Purāṇas is shown by the statement that the Dvāpara and Kali Ages could not be spoken of separately, being inseparably linked together—

32 Ibid, p. 62.

33 Ibid, p. 2.

34 Ibid, p. 62. See also Mr. Pargiter's opposite remarks on the text. p. 79 (App. I).

35 Ibid, p. 23.

yugapat samavetāu dvau dvidhā vaktum na
śakyate.³⁶

The assignation of Mahāpadma's coronation to the year 413 B. C. would lead us to compare his case with that of his Persian contemporary, Darius II, nicknamed *Nothus* on account of his illegitimate descent from Artaxerxes "the long-handed". Darius usurped the throne by killing his half-brother Sogdianus, another illegitimate son of Artaxerxes, who had assassinated the legitimate heir, Xerxes II³⁷. Darius II reigned in Persia from 424 to 404 B. C. Mahāpadma may have been encouraged by the Persian example to seize the throne which did not lawfully belong to him.³⁸ The probability of the inference will be reinforced by the consideration that the conquests of Darius I (c. 500 B. C.), preceded by the reconnoitring expedition of Skylax down the course of the river Indus,³⁹ brought the Achaemenian Empire into close touch with India proper, and may have necessitated the formation of a unified Middle Indian Empire, stretching from sea to sea, under the leadership of Udayana, the founder of Pāṭaliputra,⁴⁰—the Empire which Mahāpadma was destined later to constitute into a Great Kingdom under his sole sway by uprooting all the subordinate kings, much in the same manner as Darius I had done with

36 Mt. 142, 38; Vā. 57, 37; Bd. 61, 38.

37 G. Rawlinson, *Ancient History* (World's Great Classics series) p. 88.

38 Pargiter, *op. cit.*, p. 25.

39 V. A. Smith, *Early History of India*, 3 ed., p. 37.

40 See my booklet on *Udayana Vatsarāja*. (March 1919). Dr. Vincent Smith concurs with me in holding that Udayana is the connecting link between Magadha and Avanti. The possible influence of Darius' invasion on the formation of a Middle-India, strong enough to withstand the shock of a vigorous Persian attack, is suggested here for the first time.

the loosely-knit empire of Cyrus.⁴¹ The date of coronation of Mahāpadma appears, from this stand-point, to be a highly important landmark in the course of evolution of the Indian political constitution, and his usurpation of the throne by overthrowing ancient dynasties established a precedent which, in later times, facilitated the continued exercise of kingly power by Śūdra monarchs. Kauṭilya's reaction against "new" (*nava*) and "low-born" (*anabhijāta*) kings succeeded for a time in re-establishing on the throne at Pāṭaliputra a scion of the earlier Nandas⁴²; but the effect was nullified by the liberalising influence of the creed of Aśoka whose patronage of the Yavanas, instanced by the appointment of Tushāspa to the governorship of Girnār,⁴³ laid the foundations for subsequent Greek rule in the Punjab, and paved the way towards the protracted rule of other foreigners over the whole of Northern India.

⁴¹ Pargiter, *op. cit.* p. 25. M. was *sarvaksatrantaka*, i.e., 'destroyer of all kings'. Only subordinate kings could be meant here. The analogy with Darius I seems perfect when we comprehend the full significance of the Puranic statement that M. destroyed all kings, *being prompted by prospective wealth.* (*bhāvinārthena coditah*); for, Darius was impelled by the same motive to divide his kingdom into satrapies: D. was ridiculed as an "innkeeper greedy of gain".

⁴² Chandragupta's descent from the earlier Nandas is explicit in the Brīhatkathā. See my note on the subject in JBORS, 1918, pp. 91-95. Dr. Smith has expressed his approval of this finding in his latest edition of the Oxford History ("Additions and corrections"). I have since noticed the passage in Kauṭilya's Arthaśāstra (p. 326, ed. 1919) which adversely criticises *nava* kings, perhaps in view of M.'s conduct. This passage proves that Kauṭilya's master was not a 'new' king, but, on the contrary, ruled by hereditary right as implied in the Brīhatkathā account of his origin.

⁴³ EI, viii, p. 43.

NOTES ON THE ANCIENT HISTORY AND GEOGRAPHY OF THE KONKAN.

By P. V. KANE.

From very early times, the western coast of India has been in close communication with the countries of western Asia, Greece, Rome, and Egypt. The whole of the seaboard from Broach to Cape Comorin was studded with marts and emporia that served as warehouses for the products of the whole of India and poured from their ample stores commodities of various kinds into the markets of the West. The Old Testament furnishes ample evidence of an extensive trade between India and Babylon. Ophir, famed in the Bible as the City¹ of gold and precious stones, sandal-wood and peacocks, is located by most competent scholars somewhere on the western side of India.² It has been argued with considerable reason that many of the things with which Solomon (1016-976 B. C.) added to the pomp and glory of his Court such as the throne of ivory overlaid with the best gold, the three

I See I Kings Chap. IX.26-28 ; I Kings Chap. X.11 ;

II Chronicles Chap. VIII. 18 ;

III Chronicles Chap. IX.10.

2 Lassen identified Ophir with the Aberia of Potlemy, the Abhīra of Sanskrit Geographers, the district bordering on the mouths of the Indus. Vide JRAS for 1898 p. 253. Cunningham identified Ophir with Sauvīra, the country near Mount Abu (Ancient Geography p. 496-7). Many have identified it with Sopara. Mr. Aiyangar (Ancient India p. 368) identifies it with Beypoor on the Malabar Coast. If Ophir is to be looked for in India it seems highly probable that it is Sopara. Sopara figures very largely in the Jātaka stories (e. g. Jātaka No. 453). A fragment of Aśoka's eighth edict was found at Sopara (Vide I. A. Vol. I 7 page 295).

hundred shields of beaten gold, the spices, the apes and peacocks brought in by the navy of Tharshish once in three years, and also almug trees of which he made pillars for the house of the Lord (I Kings Chap. X 11-12, 15, 17, 18, 22) can only be traced to India. Leaving aside these regions of conjecture we can establish with a great degree of probability that from the 6th century B. C. the western coast of India was in close communication with Babylon and countries in the west.³ The Bāveru Jātaka (Cowell Vol. III, p. 83, No. 339) bears witness to an early export trade with Babylon. Several other Jātakas (e. g. No. 463) mention Bharukachchha (modern Broach) and Śūrpāraka. In the Sussundi Jātaka we have a reference to merchants of Bharukachchha setting sail for the Golden land.^{3A} Strabo⁴ says that he saw 120 ships sail from Myos Hormos to India, the former being the emporium of the Egyptian trade with India. The Pāṇḍyas in the extreme south of India are referred to by Megasthenes in his Indika and Ceylon seems to have been referred to by him as Taprobane⁵ (Tāmraparṇī). The Gautamadharmasūtra (10-33) and Baudhāyanadharmasūtra^{5A} (I-18-14) mention the duties

³ Vide JBBRAS Vol. 15 p. 109 and Prof. Rawlinson's 'Intercourse between India and the Western world' p 3, II for identifications of various Hebrew and Greek names of things with their Indian originals. Vide JRAS 1916 p. 847, for some criticism of Prof. Rawlinson's book.

See I. A. Vol. 13 p. 228 for historical account of exports of gems and metals and vol. 14 p. 274 for animals and plants known to Greek authors.

^{3A.} Jātakas Vol. III p. 123, 124 (Cowell).

⁴ M'Crendle's Ancient India p. 6.

⁵ I. A. Vol. VI. 129.

^{5A.} Baudhāyana S. B. E. Vol. 14 p. 200; Gautama S.B.E. Vol. II. p. 228.

payable on merchandise imported by sea. A passage in the *Kevat̄tuasutta* of the Digha (5th century B. C.) speaks of ships that went far out of sight of land with the help of a shore sighting bird. This is one of the earliest references to ocean-going ships.^{5B} The description of voyages in the Buddhist books imply that the vessels employed were of large size. The ship in which Vijaya was cast adrift carried 700 of his followers (See I. A. Vol. 16 p. 7, and Geiger's *Mahāvamśa* p. 54).

The *Manusmṛiti* contains rules as to the interest to be taken from those that are skilful in plying the sea trade.⁶ The large finds of Roman coins discovered particularly in Southern India establish that at least from the time of Augustus to the time of Nero (who died in 68 A. D.) the volume of trade between Rome and India was very large.⁷ The discovery of the monsoon route by Hippalus (about 47 A. D.) gave a great impetus to the trade of India with countries in the West. Embassies are said to have been sent from Southern India to Rome⁸ and Syria. Pliny (who died in 79 A. D.) contains valuable information of the exports of India⁹ and about the Geography of India. He complains that India, China and Arabia absorbed between them one hundred million sesterces (calculated to represent £11,00,000 by Mommsen) per annum,

^{5B} JRAS 1899 p. 432.

⁶ समुद्रयानकुशलाः देशकालार्थदर्शिनः । स्थापयन्ति तु यां वृद्धिं सा तत्राधिगमं प्रति ॥ Manu. VIII 157.

⁷ See Mr. Sewell's article on 'Roman coins found in India' JRAS 1904 p. 591.

⁸ M'Crendle's Ancient India p. 212 and p. 167.

⁹ See M'crindle's Ancient India pp. 102-135.

half of which went to India and that Indian goods were sold in Rome at one hundred times their prime cost. Pliny speaks of Indian merchants that had been driven by storms to Germany (M'crindle's Ancient India p. 110). The Periplus of the Erythraean sea by an unknown Greek author in the first century of the Christian era contains the best account of the commerce carried on between the Western coast of India and the Red Sea. That work mentions such ports and marts on the western coast as Borugaza (Broach), Simylla (Chaul), Mandagora (probably Mandad in the Rajpuri creek), Melizeigara (?), Buzantion (Vaijayanti i. e. Banavasi) &c. Ptolemy (150 A. D.) mentions such places on the western coast as Nausaripa (modern Navsari), Sopara, Sinylla, Balepatna, Hippocoura &c. In the Kanheri caves we have a representation of a shipwreck on the sea and of two persons praying to Padmapāṇi for rescue who sends two messengers for the purpose.¹⁰

The western coast of India (particularly Konkan) is comparatively a poor and rugged country. If the seaports of the Konkan had simply exported the products of the Konkan they could scarcely have attained to any prominence. The reason why Sopara, Kalyan, Thana, Chaul rose to be very flourishing seaports is that they were connected with the fertile country beyond the Ghats by trade routes and served as the outlets for the commodities of the vast countries in the peninsula. The inscriptions and the rock-cut caves and temples at Nanaghat, Karla, Bhaja and other places establish that the passes in the Sahyādri were in the centuries immediately preceding and following the Christian era

¹⁰ Bom. Gazetteer Vol. XIV P. 165 and Mukherji's Indian Shipping II. I. A, Vol. 16, P. 49.

important trade routes and were so easy and safe that an enormous volume of trade went on through them. Puṇṇa and his merchant companions used the trade route from Suppāraka to Sewet (Śrāvasti) in Oudh. An inscription in the Nasik Caves states that Ushavadāta made boat bridges and established ferries at several of the rivers along the coast, such as Ibā, Pārādā, Damana, Tāpi, Karabenā and Dāhanukā.^{11A} Kosmas Indikopleustes (6th century A. D.) says 'In the place called Kalliana (modern Kalyan) there is a bishop usually ordained in Persia.'^{11B}

In the foregoing an attempt has been made to point out indications from ancient authors, Indian as well as non-Indian, to establish that the western coast of India from Broach to Cape Comorin was the scene of great commercial and maritime activity from at least the 6th century B. C. The next step will now be to find out under what name or names the countries comprised in the strip of territory between the sea and the western Ghauts were known to ancient people. In very ancient times a large part of the western coast from Broach to Cape Comorin was known as Aparānta. It is very difficult to determine with any degree of precision the limits of Aparānta. That it included the territory from the vicinity of Thana to Goa may be satisfactorily established. The earliest certain reference to Aparānta is in the Arthaśāstra of Kauṭilya (about 320 B. C.) The author says that the rain-fall in Aparānta and the Himalaya regions is the heaviest of all and cannot be measured in *Dronas* while that in

^{11A} See A. S. W. I. Vol. 4 p. 99.

^{11B} Apostles of India by Dr. Ogilvie p. 55.
[F. O. C. II 47.]

Aśmaka and Avanti is $13\frac{1}{2}$ and 23 *Dronas* respectively.¹² This description in the matter of rain-fall can only apply if by Aparānta we understand what is commonly known as Konkan. Aparānta seems to have either formed part of Aśoka's vast empire or was on the confines of it or friendly to it. A fragment of Aśoka's edicts was found at Sopara.¹³ The 5th rock-edict of Aśoka refers to the Rāṣṭikas, the Petenikas and other Āparāntas. What Aśoka means by Āparāntas is not quite clear. Mr. V. A. Smith takes the word to mean 'Other nations on my borders.'¹⁴ M. Senart rendered it as 'Westerns.'¹⁵ Mr. Smith's rendering is not warranted by the natural meanings of the components of the word Āparāntas. M. Senart's meaning is natural. It is not unlikely that the word is used also in the sense of "Those people that inhabit the western coast" (i. e. Konkan). The Mahāvaṇśa mentions a mission to Aparānta sent by the priest Moggaliputta Tissa about 247 B. C.¹⁶ It is to be noted that a mission was also sent to Vanavāsi. This shows that Aparānta did not include Banavasi i. e. present North Canara and the country round about it. Though the Mahāvaṇśa was composed only in the 5th or 6th century A. D. it embodies ancient traditions and is generally regarded as faithfully chronicling events as they had been handed down. In the Kāmasūtra of Vātsyāyana the women of

12 पोऽशद्रोणं जाङ्गलानां वर्षप्रमाणमध्यर्धमनूपानां देशवापानामधर्धत्रयोदशाश्यकानां त्रयोविशातिरवन्तीनामभितमपरान्तानां हैमन्यानां च कालतः। अधिकरण II p. 115 (text).

13 I. A. Vol. 17 p. 295.

14 Edicts of Aśoka p. II.

15 I. A. Vol. 20 p. 240.

16 Mahavaṇso (Turnour) p. 71; Geiger's edition Chap. 12. pp. 82-85; See also Vinayapiṭaka (Oldenberg) Vol. 3. p. 314.

Aparānta and Lāṭa are mentioned.¹⁷ In one of the Kanheri inscriptions mention is made "of Dāmilā, whose husband was Bhojaka, lord of Aparānta."¹⁸ Bühler holds that the inscription is earlier than Gotamiputra Śatakarnī I. One of the Nasik inscriptions associates Aparānta with Kukura¹⁹. So does the inscription of Rudradāman (150 A. D.).²⁰ In the latter Surāshṭra is mentioned as a country distinct from Kukurāparānta. The Milindapanha mentions the people of Aparāntaka and Bharukachchha.²¹ In the Mahā-Bhārata we find that Arjuna goes from Aparānta to Prabhāsa, from the latter to Raivatāka and thence to Dvārka.²² In Raghuvaniśa Kālidāsa gives a graphic description of the conquest of Aparānta by Raghu.²³ After encamping on the slopes of the two mountains Malaya and Dardura he crossed the Sahya. His vast army bent on the conquest of Aparānta spread between the sea and the Sahya mountain. Then the poet refers to the damsels of Kerala (Malabar) whose tresses were powdered with the dust raised by the march of Raghu's army. The king of Aparānta submitted to Raghu and offered him tribute. The mountain Trikūṭa in Aparānta, which Raghu's elephants butted against with their tusks, served as the triumphal column recording his victory. Then Raghu started for the conquest of the Parasikas by the land route. These details enable us to say that Aparānta was to the north of Kerala and between the sea and the Sahya. What

17 चण्डवेगा मन्दसीत्कृता आपरान्तिका लात्याश । कामसूत्र II.

18 A. S. W. I. Vol. V p. 84.

19 A. S. W. I. IV p. 109.

20 I. A., Vol. VII p. 262 and A. S. W. I. II p. 128.

21 S. B. E. Vol. 36 p. 211.

22 Ādiपर्व Chap : 218. 1-11.

23 See Raghuvaniśa IV. 51-60.

its northernmost limit was is not quite clear. That Kālidāsa is unconsciously giving us the political history and geography of his own times or of times a little previous to his own is evident. Kālidāsa is generally supposed to have flourished in the 5th century A. D. Kālidāsa seems to be speaking of some dynasty that ruled over northern Konkan. Pandit Bhagavanlal took Trikūṭa (Raghuvamśa IV 59) to be a city and identified it with Junnar.²⁴ Jackson pointed out that it was a mistake.²⁵ What mountain or hill in northern Konkan was designated Trikūṭa it is difficult to say. It is not unlikely that the Traikūṭaka dynasty, that appears to have held sway over southern Gujarat and northern Konkan from about 250 to 450 A. D. was named after the Trikūṭa mentioned by Kālidāsa. That dynasty had an era of its own, which commenced in A. D. 248-49, founded according to Fleet by an Ābhīra prince Iśvarasena.²⁶ A Traikūṭaka Mahārāja Dahrasena (A. D. 456) made a grant of a village to Nannaswāmi residing in Kāpura.²⁷ We know that Kāpura was a district on the Konkan coast where Ushavadāta granted a thousand cocoanut trees.²⁸ A copper plate found in one of the Kanheri caves refers to the erection of a *Chaitya* in the great monastery on Krishṇagiri (Kanheri) in the 245th year of the era of the Trikūṭakas (i.e. in A.D. 493-494)²⁹. So it is not unlikely that Kālidāsa is speaking of some Traikūṭaka Prince. This

²⁴ Bom. Gazetteer Vol. I. part I p. 57.

²⁵ Bom. Gazetteer Vol. I part I p. 59.

²⁶ J. R. A. S. for 1905 p. 566.

²⁷ J. B. B. R. A. S. Vol. 16 p. 346.

²⁸ See Nasik inscription No. 9 in A. S. W. I. Vol. 4 p. 102 and Bom. Gazetteer Vol. 16 p. 573.

²⁹ Burgess and Bhagwanlal's inscriptions from cave temples in western India p. 58.

also fits in well with the generally accepted date of Kālidāsa.

The foregoing discussion has established that from the times of the Arthaśāstra of Kauṭilya, if not earlier, Aparānta denoted the Konkan coast and that it comprised the territory north of Bānavāse and south of modern Surat. It will be shown hereafter that this very part of the western coast came to be called Konkan in later times. Dr. Fleet was of opinion that Aparānta included the Konkan, Northern Gujarat, Kathiawar, Kutch, and Sind.³⁰ Dr. Fleet is right if only the etymological sense of the word Aparānta be looked to.³¹ But, as appears from the Arthaśāstra, the inscription of Rudradāman, the Mahābhārata and the Raghuvamṣa, long established usage had restricted Aparānta to the strip of country from Karwar to Surat. Even within these narrow limits certain parts went under other distinct names. The country between Broach and Sopara was also called Lāṭa. Ptolemy says that Barygaza is in the interior of Larike which is east of Indo-Skythia along the coast.³² Here Larike evidently stands for Lāṭaka. Navsari was the capital of the Chālukyas of Lāṭa, the dynasty being founded by Jayasimha Varman Dharāśraya, brother of Vikramāditya, second son of Pulikeśi II of Badami³³. In the Mahābhārata Anuśāsana Parva (Chap. 35. 17) mention

30 J. R. A. S. 1910 p. 427.

31 e. g. the Matsyapurāṇa Chap : 114 says 'भारुकच्छाः समाहेयाः सहसरस्वतास्तथा । काच्छीकाथैव सौराश्र्ण आनर्ता अर्द्धुदैः सह ॥ इत्येते अपरान्तास्तु शृणु ये विन्द्यवासिनः । 45-48.

Here the countries mentioned are called western Janapadas. See also Vāyupurāṇa Chap: 45. 128-131 ; Brahmapurāṇa 27-59.

32 M 'Crindle's Ptolemy p. 152.

33 J. B. B. R. A. S. Vol. 16 p. 2.

is made of the Lāṭas among Kshatriya tribes who became outcasts from seeing no Brāhmaṇa³⁴. The Mandasor inscription of A.D. 473 describes Lāṭa as a pleasing country with choice trees bowed down by the weight of flowers, with temples and halls of Gods and *Vihāras*. From a record of 888 A.D. it appears that Lāṭa was one of the divisions of Konkan³⁵ and from the reference to Tājikas (Arabs) who came first to Navasārikā to reduce the country it seems that Navasārikā was the capital of Lāṭa. Al Masudi speaks of Tana (modern Thana) as on the coast where the Lariya language is spoken.³⁶ From this it follows that Lāṭa extended up to Thana.

That part of the western coast from Karwar to Surat came to be called Konkan from comparatively ancient times, we shall now endeavour to shew by bringing together passages from various early works that speak of Konkan. Strabo speaks of a people called Koniakoi. His words are "This length is mentioned from the mouths of the Indus along the coast of the outer sea to the promontary already mentioned and its eastern limits. There the people live called Koniakoi."³⁷ Again he says "they say that Taprobane is an island lying out in the sea distant from the most southern parts of India, which are next to the country of the Koniakoi, a seven days' journey southwards."³⁸ From these details it is not unlikely that the people called Koniakoi stand for the people of the Konkan. The list of countries given in the Mahābhārata includes Konkan

34 Gupta inscriptions p. 84.

35 I. A. Vol. 13 p. 69.

36 Elliot's History of India Vol. I p. 24.

37 M'Crendles Ancient India in Classical writers. p. 18.

38 M'Crendle's Ancient India p. 20.

(Bhishmaparva 9.60). The Brīhatsaṃhitā of Varāhamihira mentions the Kaunkaṇas (16.11). A copper plate of 584 A.D. refers to Puri the capital of the Konkan (Bom. G. Vol. 14 p. 401). The Aihoṭe inscription (634 A.D.) records the fact that the Maurya rulers of the Konkan were overwhelmed by Kirtivarmā, the first Chālukya king of Badami (550-567 A.D.) and by his grand-son Pulikesi II (610-640 A.D.).³⁹ Hiuen Thsang the famous Chinese traveller speaks of a country called Kong-kin-na-pulo (Konkaṇapura) as being north of Draviḍa and about 2,000 *li* from the latter.⁴⁰ He further says that Moholach (Mahārāshṭra) was to the north-west of Konkaṇapura and about 2400 *li* from it. His description of Kong-kin-na-pulo is "this country is about 5,000 *li* in circuit. The land is rich and fertile. It is regularly cultivated and produces large crops. The climate is hot ; the disposition of the people ardent and quick. Their complexion is black and their manners fierce and uncultivated." (p. 254 of Beal's Buddhist Records). In Hiuen-Thsang's Life we read "from Draviḍa he went north west in company with 70 priests from Simhala. After going about 2,000 *li* we come to Kinnapolo. There are about 100 Sanghārāmas here and 10,000 priests belonging both to the Great and Little Vehicle".⁴¹ Scholars are not agreed to as to what country the Chinese traveller speaks of as Kong-kin-na-pulo. M. Vivien de Saint-Martin suggested Banavasi ; General Cunningham thought

39 I. A. Vol. 8 pp. 242, 244. कांकणेषु यदरिष्टचण्डदण्डामनुवीचिभिः । उदस्तास्तरसा मौर्यपल्वलोन्नुसमृद्धयः ॥

Fleet took "Chandadanda" to be the name of a general, but it seems that the word means no more than "fiery army".

40 See Beal's Buddhist Records Vol. 2 pp. 253-255.

41 Beal's Life of Hiuen Thsang p. 146.

that both bearing and distance pointed to Anegundi on the north bank of the Tungabhadrā.⁴² Beal says that we must look for it somewhere near Golkonda. Burgess identified it with Kopal or Kokanur.⁴³ In this conflict of authorities, one feels extremely diffident in making one's own choice. In other Chinese accounts of India, Konkaṇapura is said to have been one day's journey from the sea.⁴⁴ This makes it highly probable that the country called Kong-kin-na-pulo is the kingdom of the Kadambas, whose capital was Banavasi in north Canara and whose domains extended over the modern Belgaum and Dharwar Districts. The reference to the climate, the soil and the complexion of the people of Kong-kin-na-pulo point to the Karnātaka as the country through which the traveller passed, those districts being then included in the Banavasi kingdom. In the Padmapurāṇa there is a long list of countries where Konkan occurs after Chola.⁴⁵ In the Vāyupurāṇa, the Matsya and the Brahma, though the Pāṇḍya, Chola, Kerala, Vanavāsi countries are mentioned, the word Konkan does not occur. In the Sabhāparva of the Mahābhārata, Sahadeva is said to have conquered Surāshṭra, Śūrpāraka, Tālākaṭā, Daṇḍaka, Kolagiri (Kalvan in the modern Nasik district ?), Surabhīpaṭṭana, Kerala, Vanavāsi.⁴⁶ We expect here the word Konkan. It seems that Śūrpāraka is put in to represent the same country as Konkan. Leaving aside the doubtful passage of Strabo and the quotations from the Mahābhārata and the Padmapurāṇa about the date and authenticity of

⁴² Ancient Geography p. 552.

⁴³ I. A. Vol. 23 p. 28.

⁴⁴ I. A. Vol. 9 p. 23.

⁴⁵ Chap : 6-55.

⁴⁶ Sabhāparva Chap : 31. 65-70.

which there may be room for argument, it is clear that at least from the 6th century A.D. the word Konkan had come to be well known as the designation of the country that now goes under the same name. How much earlier it came into general use it is not possible to say in the present state of our knowledge.⁴⁷

Extent and Boundaries of Konkan.

It is always extremely difficult to fix with precision the extent and boundaries of ancient countries. In the case of the Konkan its western boundary is the sea and its eastern boundary also is to some extent definite, namely, it is the Sahya mountain. It will, however, be shown later on that Konkan seems to have included some territory even beyond the Sahya. The difficulty lies in fixing its northern and southern limits. A grant of the Rāshtrakūṭa Akālavarsha Kṛishṇarāja dated Sake 810 (i.e. 888 A. D.) describes how the king on the occasion of a Solar eclipse, or after having bathed in the Narmadā granted a village to the east of Variavipatṭana in the district of Variavi in the Konkan country. Variavipatṭana is to be identified with a large village called Variav on the Tāpi near Surat. This shows that Konkan extended towards the north right up to the Tāpi. Even in these days the Damanganga River is looked upon as the northern boundary of the Konkan. We saw above that northern Konkan from Sopara and Thana was included in Lāṭa. Navasari (Sanskrit Navasārikā, the Nausaripa of Ptolemy) was the capital of Lāṭa.⁴⁸ The Navasari grant of 739 A. D. tells us

47 See E. I. Vol. 4 p. 181. One of the mythical remote ancestors of Nripatungadeva is Konkanika, which seems to be a reminiscence of Konkanī who is believed to have been the ancestor of the western Gangas.

48 M'Crindle's Ptolemy, p. 39.

[F. O. C. II. 48]

how in the time of Vikramāditya II of Badami a formidable force of Tājikas (Arabs) overran Sind, Kutch, Kathiawar and Gujerat and desiring to enter the Deccan came to Navasari but was routed by the feudatory Chālukya prince Avanijanāśraya Pulikeśi.⁴⁹ If, as shown above, Lāṭa was a province of Konkan, it is natural to suppose that Konkan extended up to Navasari if not beyond. A town called Hanjamana or Hanyamana is mentioned as situated in the Konkan and as being under the rule of the Konkan Śilāhāras.⁵⁰ It is to be identified with Sanjan where the ancestors of the present Parsees are said to have first landed. Al Idrisi (12th century A. D.) says "Sindan is about a mile and a half from the sea. It is populous and the people are noted for their industry and intelligence. They are rich and of a war-like temper. The town is large and has an extensive commerce both in exports and imports."⁵¹ Al Istakhri says "Between Surabaya and Sindan about 5 days. From Sindan to Saimur 5 days".⁵² Ibn Haukal says that Sindan is about a *Parasang* from the sea and that the journey from Subara to Sindan takes ten days and from Sindan to Saimur (Cheul) five.⁵³ The above discussion makes it clear that the Northern limit of Konkan was the Tāpī.

The greatest divergence of views prevails as to the southern boundary of Konkan. Grant Duff (History of the Mahrattas p. 5) considered that Konkan extended along the coast from the Tāpī to Sadashivgad and

49 Bom. G. Vol. I part 2 p. 375.

50 I. A. Vol. 9 p. 35 the Kharepatan grant of Ananta of Anantadeva dated Śaka 1016 (i. e. 1094 A. D.) and I. A. Vol. 5 p. 278 the inscription of Chittarājadeva.

51 Elliot Vol. I p. 85.

52 Elliot Vol. I. p. 30.

53 Elliot Vol. I p. 39.

inland as far as the open plains of the Deccan and included in it parts both of Gujerat and Kanara and of the country above the Ghats. The latter he called Konkan Ghatmatha as opposed to Talkonkan. He inferred that the Mussulmans restricted it to the lower country. Some Indian writers make Gokarṇa, 25 miles south of Karwar, the boundary between Konkan and Kerala, the latter being regarded as stretching south either to Tinnevelli or Cape Comorin.⁵⁴ In the Sahyādrikhanda we are told that the territory reclaimed from the sea by Paraśurāma extended from Cape Comorin to Nasik.⁵⁵ In another place the same work includes Gokarṇa in Konkan (Uttarārdha Chap : 6.50). At present Konkan is held to include all the land between Daman in the north to Terekhol on the Goa frontier in the south and is generally divided into two parts, north Konkan and south Konkan. It is evident that at one time Goa was looked upon as the Capital of the Konkan. Mādhavāchārya, the famous minister of Harihara of Vijayanagar, in making a grant of the village of Kuchara (modern Kochare in Savantwadi) in Śaka 1330 (1391 A. D.) speaks of Goa as the Capital of Konkan.⁵⁶ A king Jayakesī in the line of the Kādambas of Goa was subdued by Vikramāditya Chālukya, son of Āhavmalla and made an alliance with the Chālukya king by marrying his grand-son to Mallaladevī, daughter of Vikramāditya. This Jayakesī is spoken of as the king of Konkan.⁵⁷ From the fore-

54 Bom. Gazetteer Vol. I part 2 p. 75.

55 देशमालोकायामास स्वं वारिधिना तदा । सहृष्टतमारभ्य योजनत्रितयावधि ॥ कन्याकुमारी चैकत्र नासिकाश्चयम्बकः परः । सीमारूपेण विषते दक्षिणतरतः शुभौ ॥ सहाद्रि-खण्ड उत्तरार्ध chap 7. 28-29.

56 J. B. B. R. A. S. Vol. 4 pp. 107, 115.

57 Compare विकमाइकदेवचरित v. 25 'एनमेष जयकेशिपार्थिवः प्रार्थितादधिक-मार्पयद्दनम् । निश्चलामकृतहासचन्द्रिकां कौकृष्णप्रणविनीमुखेन्दुपु ॥' see J.B. B.R.A.S. vol. 9, p. 242.

going it is evident that Konkan included towards the south the Goa territory at all events. It is likely, as Hiuen Thsang's account suggests, that it extended as far as the kingdom of Banavasi, the country beyond the latter towards the south being called Kerala or Malabar. When parts of the country beyond the Ghats came to be ruled over by Konkan kings, such tracts were often spoken of as included in Konkan. The Śilāhāras ruled over southern Konkan and also the Mirinja (modern Miraj) country.⁵⁸

The Sub-Divisions of Konkan.

From very ancient times the Konkan has been divided into seven regions. The Miraj plate of Sake 946 (1024 A. D.) tells us that the Chālukya king Jagadekamalla after having deprived the king of the seven Konkaṇas of everything started for the conquest of the north and encamped near Kolhapur.⁵⁹ These indications make it clear that the ruler of the seven Konkaṇas referred to must be a Kādamba king of Goa. The Prasannarāghava of Jayadeva alludes to the divisions of Konkaṇ into seven provinces.⁶⁰ What the names of these seven divisions were it is extremely difficult to say. One thing is clear. From very ancient times, epigraphic records speak of two Konkaṇas, the one containing 1400 villages and the other 900. The Konkaṇ 1400 represents that country, the capital of which was Puri and which included Hanja-

58 A record of 1110 A. D. describes the महामण्डलेश्वर गण्डरादित्य as reigning over the मिरज्जु country together with the seven Khollas and Konkan. J. B. B. R. A. S. Vol. 113 p. 6.

59 I. A. Vol. VIII p. 18.

60 दक्षिणस्याम्नुष्ठेमध्ये कृत्वा कोङ्कणमष्टमम् । मद्राणजन्मा दहनो लङ्कातङ्काय चाप्ताम् ॥ प्रसन्नराघव IV.

mana (Sanjan) Sopara, Thana, Kalyan and Chaul i.e., northern Konkan including the districts of Thana and Kolaba and parts of Ratnagiri. A king Chittarājadeva of the Śilāhāra dynasty is styled in a grant dated 948 Sake (1026 A. D.) the ruler of the 1400 Konkan villages chief of which were Puri and Hanjamana.⁶¹ The Kharepaṭan copperplate speaks of the Śilāra Anantapāla as ruling over the whole Konkaṇa 1400 villages in 1096 A. D.⁶² It records the grant of exemption from tolls for all carts belonging to the great minister Bhābhana Śreshṭhin, son of the great minister Durgasreshṭhin of Valipavana, and that his carts were to come into any of the parts of Śreshthānaka (Thana), Nāgapura (?), Śūrpāraka (Sopara), Chemulya (Chaul) and others included in Konkan 1400. The Konkan 900 is the province over which the Kādambas of Goa ruled.⁶³ These two viz: Konkaṇa 1400 and Konkaṇa 900 are undoubtedly two of the seven divisions of Konkan. Scholars are not agreed as to what the names of the seven divisions were.

Prof. Wilson (probably relying upon corrupt passages of the Sahyādrikhaṇḍa explained the seven as Kerala, Tuluva, Govarāshṭra, Konkana (proper), Keratala, Varalatta and Barbara.⁶⁴ Dr. Gundert's Malayalam dictionary on Konganam enumerates Kārāṭa, Virāṭa, Mārāṭa, Konkaṇa Havyaga, Taulava and Kerala as the seven Konkaṇas. Fleet thought that the above list was imaginative, except as to the last three. He proposed the divisions as follows:—Payve, Hayve or Haive 500 (north Canara) was the first division ; then

61 I. A. Vol. V, 278.

62 I. A. Vol. IX p. 41.

63 Bom. Gazetteer Vol. 12 p. 452.

64 Bom. Gazetteer Vol. I part II p. 282 n 5.

Konkan 900, which he was inclined to identify with the Revatīdvīpa of the Aihole Inscription; then Iridige (corresponding to Savantvadi and Ratnagiri), which is called Mahāsaptama in a record of 705 A. D.^{64A}, then Konkan 1400 of the Śilāhāras and then Lāṭa. In the Sahyādrikhaṇḍa the seven divisions given are Kerala, Tulanga, Gorāshtra (Goa), Konkaṇa, Karahāṭa, Kara-nāṭa and Barbara.⁶⁵ The passage is evidently corrupt.

Apart from these main divisions, epigraphic and other records mention several other districts in Konkan.

A grant dated in expired Kali year 4270 of the Kādamba Sivachittaparmādi speaks of a Palasideśa and a Kampaṇa (district) in it called Kālagiri.⁶⁶ Palasideśa seems to be the same as the Palasige 12000 province, which comprised the present Belgaum district. The chief city was called Palaśikā or modern Halsi, 10 miles south east of Kharsapur. It is not unlikely as said above that when the Kadambas ruled over Belgaum and Goa, Palasige was looked upon as a Konkan province.

Revatīdvīpa is often spoken of in the epigraphic records. A grant of Pulikeśin II dated in the 5th year of his reign (i. e. A. D. 614) found in the Malvan Taluka refers to a village Pirigipa in Revatīdvīpa.⁶⁷ The Chālukya Mangaliṣa (one of whose grants is dated Śake 500) is said to have conquered Revatīdvīpa in the western sea. Dr. Bhandarkar identifies Revatīdvīpa

^{64A} I. A. Vol. 9 p. 131. See also p. 129 for one of the Nerur plates of Chālukya Vijayāditya dated 700 A. D. which says that the village Nerur is in the Iridige District.

⁶⁵ सह्याद्रिखण्ड उत्तरार्ध Chap : 6. 47-48.

⁶⁶ J. B. B. R. A. S. Vol. 9 p. 279.

⁶⁷ I. A. Vol. 14 p. 330.

with Redi, a few miles to the south of Vengurla.⁶⁸ Fleet says that Dr. Bhandarkar is wrong in calling Revatīdvīpa an island. He says that 'dvīpa' is used in a broad sense in which it also occurs in Kāpardikadvīpa and he identifies Revatīdvīpa with the Konkan 900.^{68A} But the Kauṭhem plate of Vikramāditya V dated Śake 930 (i. e. A. D. 1008) shows that Revatīdvīpa was an island.⁶⁹ It may be admitted that the country round about the island of Revatīdvīpa came to be called by the same name.

In a grant of the Śilāhāra Bhoja dated Śake 1113 (1191-92 A. D.) the village granted, Viz : Kaseli, is described as being in the Atṭavire-Kampaṇa. Kaseli is a village near Adivare in the Ratnagiri District and Atṭavire is evidently Adivare.⁷⁰

Jayakesin I, a Kādamba of Goa, is described as Death to the king of Kāpardikadvīpa. Kāpardikadvīpa seems to be the kingdom of the northern Śilāhāras, probably extending from Rajapur to Sopara and Sanjan. It was so called after Kapardin I or II one of the northern Śilāhāra kings. The Kadamba king Jayakesin II of Goa is said to have held the whole Konkan including Kavadidvīpa lakh and quarter.⁷² It appears that Kavadidvīpa is a corruption of

68 Bom. Gazetteer Vol. I part 2 p. 181,

68A Bom. Gazetteer Vol. I part 2 p. 347 note 2.

69 I. A. Vol. 16 p. 15, 22 'सर्वदीपाक्रमणमहसो यस्य नौसेतुबन्धेरुहंयान्विन्यथित पृतना रेवतीद्वीपलोपम् ॥'

'whose army after crossing the sea by a bridge of boats caused (or brought about) the disappearance of Revatīdvīpa (as an island)'.

70 See report of the भारत-इतिहास-संशोधक मण्डल for Śake 1835 p. 220.

71 J. B. B. R. A. S. Vol. 9 p. 266.

72 Bom. Gazetteer I part 2 p. 283 note and 452.

Kāpardikadvīpa. As it is said to be quarter and a lakh province, it must have been a very large country. Even then the figure seems to be extremely exaggerated.

There is frequent mention of a district called Kāpura. It seems to have been on the western coast from Sopara to Sanjan. In one of the Nasik inscriptions of Ushavadāta mention is made of the gift of 8,000 cocoanut trees in the village of Chikhlapadra in the district (Āhāra) of Kāpura.⁷³ In the grant of the Traikūṭaka Dharasena dated 207 of the Traikūṭaka era (i. e. 456 A. D.) the donee Nannasvāmi was a resident of Kāpura.⁷⁴

In the Kharepatan grant of Śake 930 we have a district called Kandalamūliya which probably stretched from Chaul (Chemulya) to Bassein. The name seems to be significant. It probably refers to the large groves of plantain trees that even now are a special feature of Cheul and Bassein. The town Chandrapura mentioned in the same grant as included in Kandalamūliya is probably the modern Chembur. It is probable that the Kandavalāhāra district mentioned in the Navsari grant is the same as the Kandalamūliya district of the Kharepatan grant.⁷⁵

The famous city of Sopara was the chief place of a district called Soparakāhāra. In one of the Kanheri inscriptions there is mention of it.⁷⁶ From a record of Chhittarājadeva Śilāhāra we learn that the district of Shaṭshashṭi (modern Salsette) was included in the

73 A. S. W. I. IV p. 102; Bom Gazetteer Vol. 16 p. 572.

74 J. B. B. R. A. S. 16 p. 346.

75 J. B. B. R. A. S. Vol. 16 p. 3.

76 A. S. W. I. Vol. 5 p. 76, No. 5.

Thana province.⁷⁷ In many of the Kuḍā inscriptions near the Rajpuri creek we often meet with the form Sadageriya or Sāḍageriya which is probably to be connected with Shaṭshashṭi.⁷⁸ In an inscription of the Konkanchakravarti Aparāditya dated Śake 1109 (1187 A. D.) reference is made to a village Māhavali in Shaṭshashṭi.⁷⁹

The Navasārikā district is spoken of in a grant of Pulakesī Chālukya of Gujerat dated 738-9 A. D.⁸⁰

In a grant found near Goa of Śake 532 (610 A. D.) the gift of the village of Kārellikā in the district of Kheṭa is mentioned.⁸¹ Prince Kākusthavarmā of the Kādamba family gave away while in Palāśikā a field in a village called Khēḍa.⁸² It is not quite clear what district is meant by Kheṭa. Probably it is identical with Khed in the Ratnagiri District.

The Bhādāna plate of Aparājita dated Śake 919 (i. e. 997 A. D.) speaks of a Māhirihāra district (Vishaya) in Konkan 1400. This district comprised the modern town of Bhiwandi near Kalyan,⁸³ as the places mentioned therein can be identified with certain villages near Bhiwandi.

THE ORIGIN OF THE NAME KONKAN.

It is said in the Imperial Gazetteer (Vol. 15 p. 394) "The term Konkan seems to be of Dravidian origin

⁷⁷ I. A. Vol. 5 p. 278.

⁷⁸ Burgess and Bhagwanlal's cave temples p. 4 and p. 9; A. S. W. I. Vol. 4 p 84.

⁷⁹ J. B. B. R. A. S. Vol. 12 p. 333.

⁸⁰ Bom. Gazetteer Vol. 1 part I. p. 109 N. 2.

⁸¹ J. B. B. R. A. S. Vol. 10. p. 365.

⁸² J. B. B. R. A. S. Vol. 9 p. 235.

⁸³ E. I. Vol. 3 p. 267.

[F. O. C. II 49.]

but has not so far been satisfactorily explained." Before proceeding to discuss the origin of the name of Konkan it is necessary to dwell upon one or two points. In the first place various forms of the name present themselves, though the form Konkaṇa is the most frequent. Even in the same record one meets with two different forms of the name. For example, in the Kharepatan grant we have the form Konkaṇa and also Kunkaṇa twice.⁸⁴ The commentator of the Kāmasūtra uses the form Kunkaṇa.⁸⁵ In the Gaṇadharasārdhaśataka of Jinadatta (Samvat 1211 i. e. 1155 A. D.) we have the form Kunkuṇa.⁸⁶ Mankha (1135-11-45 A. D.) in his Śrīkanṭhacharita speaks of an embaassy sent by Aparāditya king of Kunkuṇa to Kashmir.⁸⁷ If we turn to Mahomedan writers, we shall find a variety of forms. Alberuni speaks of Tana as the capital of Kunkan.⁸⁸ Al Masudi, who died in 956 A. D., says "this country is also called Kamkar. On one side it is exposed to the attacks of the king of Juzr (Gujerat)."⁸⁹ Ibn Batuta (1340 A. D.) and Rashi-ud-din used the form Konkan-Tana. Other

84 I. A. Vol. 9 p. 35.

85 'कुङ्कणविषयात्पूर्वेण वनवासाविषयः' on the sūtra 'मध्यमवेगाः सर्वसह-वानवासिका :'

86 I. A. Vol. II p. 293.

87 'वनोभिर्नुदे दन्तश्चित्रीखण्डपाण्डुभिः । वादिनां वादिर्पोष्मायेनशूर्परकाधसु ॥ यंश्रीमदपरादिष्य इति दूर्यप्रसिद्धये । प्रजिवायवनश्चावः काश्मीरान्कुङ्कुणेश्वरः ॥ chap. 25. 109-110.

It is remarkable that Kashmir though so distant from Konkan was in close touch with it. The commentary of Aparārka, king of Konkan, on the Yajnavalkyasmṛiti was received as an authority in Kashmir. Pratīhārendurāja, commentator of Udbhaṭa's work on Poetics, was an inhabitant of Konkan and became a pupil of Mukula.

88 Alberuni (Sachau Vol. I p. 203)

89 Elliot's history of India Vol. I p. 25.

Mahomedan writers employ the forms Kemkem, Komkam and Kankan. These different forms of the name increase the difficulty of the task of finding out the origin of the term Konkan. Another circumstance that is worthy of note is that in numerous grants and inscriptions found in the Konkan, the important ministers of state as well as the donees have names that more or less seem to be Dravidian. For example in the grant of the Rāshṭrakūṭa Akālavarsha Krishṇarāja dated Sake 810, where the village granted was on the Tāpī the name of the *Dūtaka* and Mahattamasarvādhikārī was the Brāhmaṇa Ullaiyaka or Allaiyaka.⁹⁰ Similarly in the inscription of the Śilāhāra Chittarājadeva recording the grant of a village in Salsette, the names of the donee Amadevaiya, of the *Sarvādhikārī* Nagaṇaiya, of the Minister for peace and war Sihapaiya indicate that they were all southerners.⁹¹ In the Bhādāna plate of Aparājita the names of most of the people in whose hands water was poured when making the grant of the village to the temple of Lonāditya, viz: Vāpaiya Śreshṭhin, the Bhojaka Chelapaiyu, the Brāhmaṇa Govaṇaiya, point towards the south as their native place.⁹² It has often been argued from these facts that the Kanarese language was spoken up to the Tāpī in the Konkan and up to the Godāvarī in Mahārāshtra and that the population of the Konkan also was more or less Kanarese. It seems however, that the facts to be gathered from the epigraphic records furnish far too slender a basis for such an hypothesis. There is another and perhaps a more natural and satisfactory explanation. It is to be remembered that the over-

⁹⁰ I. A. Vol. 13, 65, 67.

⁹¹ I. A. Vol. 25 p. 278.

⁹² E. I. III p. 267.

lords of the Konkan from the 6th century onwards were the Chālukyas of Badami, the Rāshṭrakūṭas of Mānyakheṭa and the Chālukyas of Kalyānpura and that Konkan was ruled by the Śilāhāras who styled themselves Mahāmaṇḍaleśvaras (great feudatories) of the above mentioned imperial houses. Now Badami and Mānyakheṭa are in the heart of the Kanerese country. It is quite natural that as the victorious arms of the Chālukyas and the Rāshṭrakūṭas advanced in the Konkan Kanerese Brāhmaṇas residing at the centre of Government followed in their wake in various capacities. Hence is it that the ministers and the donees even in Konkan grants are southerners. Further it seems that even the Śilāhāra rulers of the Konkan were not natives of the soil. One of their *birudas* is "overlords of the city of Tagara". It follows therefore that the Śilāhāras cherished memories of their ancestors having been connected in the dim past with the famous city of Tagara. Tagara is one of the two important cities and marts of Dakinabades mentioned by the Periplus, the other being Paithan.⁹³ For many years there was a great controversy about the site of Tagara. But the researches of Dr. Fleet established that Tagara is the same as the modern Thair or Ter in the Naldurga District of the Nizam's Dominions.⁹⁴ If the Śilāhāras, the rulers of the Konkan from the 8th century to the 13th century, came originally from the Karnāṭaka country and if the central government of their overlords was also in the heart of Karnāṭaka, it is but natural that many of their chief ministers and advisers should be Brāhmaṇas from Karnāṭaka. A parallel is furnished in later times by the Peshwas.

93 See Schoff's Periplus p. 43 Para. 51.

94 J. R. A. S. 1901, pp. 537-552.

The fact of the occurrence of distinctly southern names in the epigraphic records does not establish that Konkan was inhabited by a Kanarese people or that the language there spoken by the common people was Kanarese. Some writers think that the word Konkaṇa is derived from a Kanarese word "Konku" meaning "uneven ground" with the affix *ana* added to form the name of a country as in Telingana.⁹⁵ But on closer examination this derivation will be found to be unacceptable. The Chālukyas, the first of the dynasties beyond the Ghats that had anything to do with the Konkan, turned their attention to the Konkan only in the latter half of the 6th century. It is Kīrtivarmā, the first Chalukya king (550-567 A. D.) who is described as the knight of death to the Nalas and the Mauryas, the rulers of the Konkaṇa.⁹⁶ But we saw above that the name Konkan was well established in the times of Varāhamihira (first half of the 6th century A. D.). It cannot therefore be urged that it was in the time of the first Chālukya king that the term Konkan was first coined by the followers of the victorious Chālukyas to represent the peculiar physical features of Konkan. Nor can it be said that the Kādambas of Banavasi gave that name to the country over which they ruled. In the first place it has not yet been established that the Kādambas ruled over Banavasi before 500 A. D. In the second place there is no reason why the name Konkan should have been applied to the northern part of it in the Āihole inscription, when northern Konkan was never under

95 See the Marathi monthly Lokamitra for June 1913. See also Bom. Gazetteer Vol. I part II p. 283 N. which mentions a record from Balagāmve in Mysore where an attempt is made to connect Konkan with "Kana" a particle.

96 I. A. Vol. 8 p. 244.

the suzerainty of the Kādambas. It is well known that northern Konkan was successively governed by the Aśokan Mauryas, the Āndhrabhrityas, the Kshatrapas, the Ābhīras, the Traikūṭakas and the later Mauryas from the 3rd century B. C. to the 7th Century A. D.⁹⁷ In epigraphic records before 600 A. D. we do not come across the word Konkan. But the early records at Kanheri, Nasik and other places use the word Aparānta or such place names as Soparaka, Chemulya, Kaliana etc. If the word Konkan is to be derived from a non-Sanskritic source, a conjecture may be hazarded that it was evolved some time between 100 to 400 A. D. either by the Kshatrapas or the Ābhīras and that the word Konkan may have something to do with the Persian word "Koh" meaning mountain.

In the Udyogaparva of the Mahābhārata we come across a list of Nāgas. Therein Kukura and Kukuṇa are mentioned.⁹⁸ Some think that the name Konkan is derived from the name of the Nāga Kukuṇa. It seems, to say the least, that this is a very far-fetched

97 It is not unlikely that the Traiūṭakas were Ābhīras.

98 Udyogaparva Chap : 103. 10.

The name Konkan occurs as Koṇ-Hānam in Early classical Tamil literature. It was included in the territory of Naman the woman-killer-Elil kairhaw. Mont d' Ely north of Cannanore was also in his Kingdom which included Tulu and Konkan. Ahananūra, poems referring to Nannan. The meaning of the term Koṇ-Kānam would be, "the forest wherein it was legitimate to plunder," a tract of forest country which was a woman's land of same kind.' That this was the meaning is clear as these poems interpose "peruin" vast between the words. (Puranānūṛ, poems referring to Naunam). The name seems apparently to be of Tamil origin and may have denoted originally the country along the coast south of Goa, at any rate not far north of Goa for its northern limit. This name seems to have stuck onto the territory in spite of its expansion.

derivation. There is hardly anything to show that Konkan was the country of the Nāgas or that the latter were the predominant people in it at some historical period. Besides it is questionable whether the list of the names of the Nāgas is not itself suggested by the names of the countries themselves instead of the countries being designated after the Nāgas.⁹⁹

In the inscription of Rudradāman (A. D. 150) and in the Nasik inscription of Vasishthīputra Pulumāvi we come across Kukurāparānta.¹⁰⁰ One feels the temptation of identifying Kukura with Kunkuṇa (the meaning being "that portion of Aparānta called Kukura"). That Kukurāparānta is the name of one country seems to follow from the manner in which other countries are grouped in the inscription of Pulumāvi. In the list of countries there given (Asika - Asaka - Mulaka-Suraṭha - Kukurāparārta - Anupa Vidhabha-Ākarāvati-Rājasa) there is no *Sandhi* between Asika and Asaka, between Kukurāparanta and Anupa and between Vidabha and Ākarāvati. The intention of the engraver was apparently to keep the name of each country distinct. If therefore Kukura and Aparanta were thought to be distinct countries, there should have been no *Sandhi*. There are however serious objections against the tempting hypothesis of the identity of Kukura and Kunkuṇa. In the passage of the Udyogaparva cited a little above Kukura and Kunkuṇa are separately mentioned. It was believed in ancient times that each country had a guardian Nāga (*vide* the mention of the Śrikanṭhanāga in the Harshacharita III). Besides in numerous passages of

99 I. A. Vol. 7 p. 262 and A. S. W. I. Vol. 2 p. 128.

100 A. S. W. I. Vol. 4 p. 108 ; Bom. Gaz. Vol. 16 p. 550.

the Mahābhārata the Kukuras are described as a tribe of Yādavas associated with the Vrishnis, the Bhojas, the Andhakas and Daśārṇas and so are connected with Kathiawar and northern Gujarat. It is therefore difficult to regard Kukura as the original of Kunkuṇa or Konkana.

THE EARLY HISTORY OF THE GURJARAS.

BY

R. C. MAJUMDAR.

Various references indicate that there was a Gurjara kingdom at the beginning of the Seventh century A. C. Thus Bāṇabhaṭṭa¹ refers to Prabhâkaravarḍhana's successful wars against the Gurjaras, while a similar claim is advanced on behalf of Pulakeśi II in the Aihole inscription.² The Chinese traveller Yuan-Chwang visited a Gurjara kingdom³ on his return journey and the inscriptions of the feudatory Gurjara chiefs of Broach claim descent from the *Gurjar-nripanvamsa* indicating the existence of a royal family of the Gurjaras.⁴

Yuan-Chwang places the Gurjara kingdom about 300 miles north of Valabhi. This takes us to the Central Rajputana and a Gurjara kingdom in this locality satisfactorily explains all references about it.

It is generally assumed that the Imperial Pratîhâra Dynasty, which had its capital at Kanauj, originally ruled over this province. That may be so, but this dynasty did not exist in the beginning of the seventh century A. C. According to the Gwalior Inscription of Bhoja,⁵ Vatsarâja belonged to the third generation of kings and as he is known to have been ruling in

(1) Harsha-charita translated by Cowell and Thomas, p. 101.

(2) Ep. Ind. Vol. VI, p. 6.

(3) Watters Vol. II. p. 249.

(4) Bombay Gazetteer Vol. I, Part II, p. 313.

(5) Annual Report of the Archaeological Survey of India, 1903-4, p. 277.

783-784 A. D.,⁶ Nâgabhaṭa, the first king, cannot be placed further back than the beginning of the eighth century A. D. The question therefore naturally arises, what royal family of the Gurjaras ruled in Rajputana about the beginning of the seventh century A. D., and carried on wars against the House of Thaneswar in the north and the Châlukyas in the south ?

So far as the available evidence goes, there is only one direction to which we may turn for an answer. Several inscriptions testify to the existence of a Gurjara Pratîhâra line earlier than, and different from, the Imperial one, and this, I believe, to be the ruling family which is referred to in the literature and inscriptions of the Seventh century A. D.

Our knowledge of the history of this dynasty is based upon six inscriptions, *viz.*

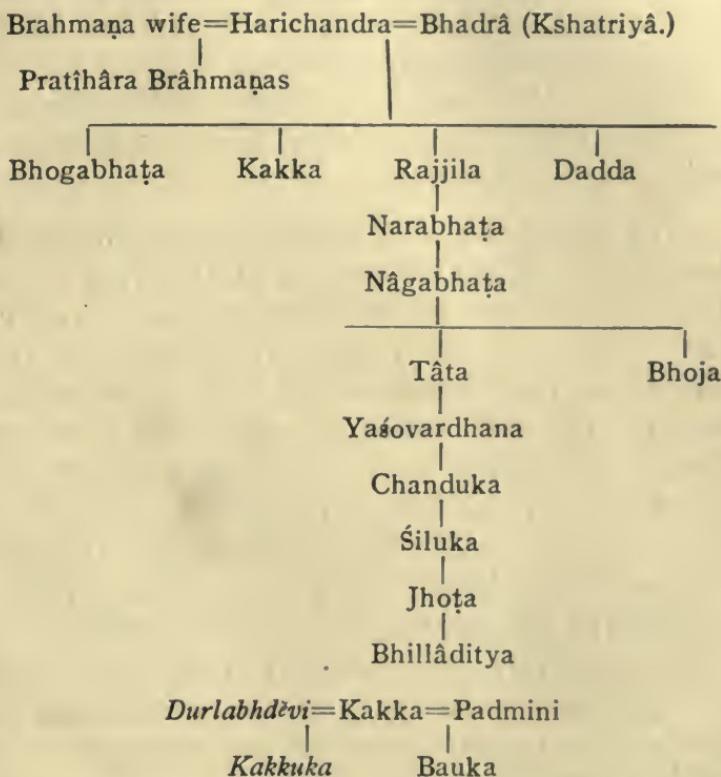
(I) Jodhpur Inscription of Bâuka, published in J. R. A. S. 1894, p. I. The inscription is dated but the portion containing the date has been variously interpreted. Thus Munshi Deviprasad, Dr. Kielhorn and Professor Bhandarkar read the date respectively as Sañvat 940, 4, and 894.⁷

(II—VI). The five Ghaṭayâla inscriptions of Kakkuka ; of these, one was published in J. R. A. S., 1895 p. 513ff., and the remaining four in Ep. Ind., Vol. IX, p. 277ff. Three of these five inscriptions bear the date Sañvat 918.

(6) This follows from a passage in Jaina Harivâmsa. Cf. J. R. A. S. 1909 p. 253.

(7) For the first two views Cf. J. R. A. S. 1894, p. 3. For the last Cf. Progress Report, Arch. Surv. W. India, 1907, p. 30 ff.

The inscription No. I, supplies us with the following geneology of a line of Kings belonging to the Pratihâra dynasty.



The Ghaṭayâla inscriptions of the Pratihâra Kakkuka, dated in the Vikrama year 918, confirm the above geneology, although in one of them the names are slightly modified such as Śilluka for Siluka, and Bhilluka for Bhillâditya. As they trace only the line of descent, they omit the names of the three brothers of Rajjila. They add a new name to the dynastic list viz. that of Kakkuka, the son of Kakka and Durlabha Devî. Kakkuka was thus a step-brother of Bauka.

That the chiefs above mentioned were independent rulers admits of no doubt. The inscription No. I

applies the term *rājñī* to Bhadrā, the queen of *Harichandra*, the first chief, and to *Jajjikādevī*, the queen of *Nāgabhaṭa*, and the term *Mahārājñī* to *Padminī*, the queen of *Kakka*. It refers to the *Rājadhāni* of *Nāgabhaṭa* and the *rājya* of *Tata*, *Jhoṭa* and *Bhillāditya*. The sons of Harichandra are called *Bhûdharaṇakshama* and *Kakka* is styled *bhṛpati*, and *Bauka* is called *Nṛsimha*.

The absence of pompous and high-sounding titles need not necessarily indicate, as Dr. Hoernle contends, "that the princes of this dynasty were only small chiefs."⁸ For in this respect the inscription No. I bears a close resemblance to the Gwalior inscription of Bhoja I. The latter adds no royal epithet to *Nāgabhaṭa*, the first chief, calls the second and fourth Kings respectively as *kshmābhṛdīṣe* and *kshmāpāla* while *Nāgabhaṭa* and Bhoja, the greatest kings of the dynasty are introduced without any royal epithet. Whatever might be the reasons, the close parallel between these two contemporary records would preclude any conclusion regarding the subordinate rank of the chiefs under consideration on the basis of the absence of high-sounding royal epithets.

The inscriptions thus furnish us with a line of kings extending over twelve generations. Taking twenty-five years as an average for each generation, the total reign period of the dynasty would be about 300 years.⁹ As the date of Kakkuka is *Saṁvat* 918 or A. D.

(8) J. R. A. S. 1905, p. 28.

(9) Dr. Hoernle remarks "The two half brothers Kakkuka and Bauka formed the twelfth generation of their Pratihara dynasty. This fact, at the usual rate of twenty years for a reign, will place Harichandra the founder of the dynasty at about 640 A. D." Dr. Hoernle here overlooks the difference

861 the founder of the dynasty Harichandra may be placed at about A. D. 550. This is in full accordance with the fact that the earliest reference to the Gurjaras, to which race the Pratihâras belonged, is carried back to the same period, by the reference in Harshacharita to the wars of Prabhâkaravardhana against them. The Province of *Gurjaratrâ*, which was named after the Gurjaras, and must therefore be looked upon as the province where the Gurjaras gained a firm footing and established themselves, was under the sway of this dynasty. This is quite evident, not only from the find-spots of the inscriptions of this dynasty which have all been found within its area, but also from the statement in the *Ghatayâla* inscription, that Kakkuka ruled in *Gurjaratrâ*. The inscription No. I also throws some light as to the period when this province was being gradually occupied by this dynasty. The verse 9 tells us that the four sons of Harichandra built a large rampart round the fort of Mâñdavyapura *which was gained by their own prowess (nijabhujârjjila)*. Mâñdav-

between "reign" and "generation". A consideration of the well known historical dynasties such as the Pâlas, the Châlukyas and the Râshtrakûtas would show that the average duration of a generation must be taken to be at least 25 years.

- Thus (1) Eight generations of the Pâla kings from Dharmapâla to Mahîpâla ruled from about 800 to 1025 A. D. giving an average of about 28 years.;
- (2) Seven generations of Châlukya kings from Kirtivarman I to Kirtivarman II ruled from 567 A. D. to c. 747 A. D. giving an average of about 26 years.
- (3) Nine generations of Râshtrakûta kings from Dantidurga to Indraraja IV ruled from 753 A. D. to 982 A. D. giving an average of 25 years.
- (4) Nine generations of the Imperial Pratihâra kings from Vatsaraja to Trilochanapâla ruled from 783 A. D. to 1027 A. D., giving an average of 27 years.

yapura is evidently Mandor, near Jodhpur. It is evident, therefore, that the Gurjaras under Harichandra and his sons had occupied the province known after them, and proceeded up to Mandor before the end of the Sixth century A. D.

The period was indeed a suitable one for such conquest. After the downfall of the short-lived empires of Mihirakula and Yaśodharman, Northern India must have presented a favourable field for the struggle of nations. The Gurjaras, who probably entered India along with, or shortly after, the Hūṇas,¹⁰ found a favourable opportunity to press forward till they advanced as far as the Jodhpur State. Their further advance was checked by the prowess of Prabhākaravardhana and his son, and they were therefore obliged to establish themselves in the province which was consequently named after them. Harichandra must have been the leader, or at least one of the principal leaders, of this advanced section of the Gurjaras, but in any case his dynasty was ultimately able to establish its supremacy over the entire clan. This seems to be the only reasonable inference from the circumstances stated above, and I do not know of anything which contradicts this view.

The Gurjara chiefs ruling at Broach seem to have been feudatories of this main dynasty, serving as their advance post in the south. The earliest date of the third chief of this dynasty is 928-9 A. D.¹¹ Allowing fifty years for the two generations that preceded him we get the date c. 580 A. D. for the *sāmanta* Dadda who founded the line. The date corresponds so very well with that of Dadda, the youngest son of Harichandra,

(10) J. R. A. S. 1909, p. 61

(11) Bombay Gazetteer Vol. I part II, p. 313.

that the identity of the two, may at once be presumed. It has been already suggested, on general grounds, that the Broach line was feudatory to the main line of the Gurjaras further north, but no link, connecting the two, has been hitherto obtained. The proposed identification would not only supply such a link but would also explain why the Gurjara inscriptions record that Dadda I was of the race of Gurjara kings (*Gurjara-nṛipa-vāṁśa*) although he and his descendants are referred to as *sāmantas* or feudatories. Further, it closely fits in with the theory of the Gurjara invasion dealt with above. It would appear that after Harichandra had carved a principality for himself in Gurjaratrā and the neighbouring country, the nomadic habits of the tribe led them further south till they conquered a fair portion of Lāṭa. The necessity of preserving their own against the rising power of the Chālukyas probably led to the foundation of a feudatory state in the southern province under Dadda, the younger brother of the ruling king Rajjila. Instances like these are furnished by the history of both the Chālukyas and the Rāshtrakūṭas.

There can be scarcely any doubt that the Gurjara kingdom visited by Yuan-Chwang belonged to this dynasty. The kingdom, according to Yuan-Chwang, was about 300 miles north of Valabhi, and Gurjaratrā or country round Mandor exactly answers to this description. As Harichandra's dynasty was certainly ruling in the locality at the time of the pilgrim's visit, we are justified in identifying their kingdom with the one described by Yuan-Chwang. Nay, I believe that we are even able to identify the king whose court was visited by the pilgrim. "The king", says he, "is of the kshatriya caste. He is just twenty years old. He is distinguished for wisdom, and he is courageous. He

is a deep believer in the law of Buddha and highly honours men of distinguished ability." Now, as the pilgrim visited the kingdom about 100 years after the foundation of the dynasty we may reasonably expect four generations of kings to have passed away during that period and the young king may be looked upon as belonging to the fifth. On referring to the dynastic list, we find king Tâta occupying this position. The verses 14-15 of the Inscription No. 1 inform us that king Tâta, considering life to be evanescent as lightning abdicated in favour of his younger brother, and himself retired to a hermitage practising there the rites of true religion. The words *buddhvâ* and *suddha* used in these verses might have been deliberately used as an indirect hint about the Buddhist religion which he professed, but the curious coincidence about the religious fervour of the king who may be held on other grounds to have been contemporary with the pilgrim gives rise to a strong presumption about the correctness of our identification.

The Gurjaras after their settlement in Rajputana and Broach had to fight for their supremacy with Prabhâkara-Vardhana of Thâneswar who seems to have headed the native resistance against the invading hordes of the Hûṇas and the Gurjaras. We have already referred to the wars of Prabhâkaravardhana against the Gurjaras. The poetical language of Bâṇabhaṭṭa may be taken to imply that the further advance of the Gurjaras was stayed in the north. The struggle was not, however, a decisive one and seems to have been continued till the time of Harshavardhana. The feudatory Dadda II of Broach is said to have protected a lord of Valabhi against the Kanauj emperor¹² and

(12) Ibid. p. 315.

surprise had justly been expressed how a small state like Broach could withstand the force of the mighty emperor. Everything however appears quite clear if we admit Broach to have been a feudatory state of the dynasty of Harichandra and remember its hereditary enmity with the House of Thâneswar. That the Gurjaras were not worsted in their struggle with the kings of Thâneswar appears quite clearly from the fact that they retained their independence as Yuan-Chwang informs us, till at least a late period in the reign of Harshavardhana. The struggle between Dadda II and the rulers of Kanauj incidentally referred to in inscriptions may thus be looked upon as part and parcel of the great and long drawn battle between the two powers.

The extension of the Gurjara power in the south brought it into conflict with the rising power of the Châlukyas. It is recorded in the Aihole inscription that the Châlukya hero Pulakeśi II (611 to c. 640 A. D.) defeated the Lâṭas, Mâlavas and the Gurjaras¹³. The Gurjaras must here be taken to refer to the Pratîhâra dynasty under consideration, for it cannot denote the feudatory line founded by Dadda as it is included under the Lâṭas. The mention of the Gurjaras along with the Lâṭas and Mâlavas clearly show that they occupied a territory contiguous to these two provinces and the kingdom of the Pratîhâra line under consideration exactly corresponds to this. The struggle between the two powers must have been of long duration. For during the reign of the successor of Pulakeśi a branch of the Châlukya dynasty was established in the Southern Gujarat and this was

(13) Ep. Ind. Vol. VI p. 6.
[F. O. C. II 51.]

evidently to keep in check the powerful Gurjaras in the north.

The Gurjara Pratîhâra line founded by Harichandra thus established itself in Rajputana and fought successfully against the royal houses of Thâneswar and Badami. For about two hundred years they ruled in splendour over the greater part of Rajputana, but the Arab invasion of about 725 A. D. brought about a decline. The Mausari Grant¹⁴ of Gujerat Châlukya Pulakôsi Raja dated in October, 738 A. D. tells us that Gurjaras were destroyed by an invasion of the Tajjikas or Arabs, apparently shortly before that time. There can be scarcely any doubt that the Arab invasions referred to in the grant were those undertaken by Junaid, the general of Khalif Hasham. Al Biladuri gives a short account of these expeditions and mentions, among other things, that Junaid sent his officers to Marmad Mandal, Barus and other places, and conquered Bailaman on Jurz¹⁵. There can be no doubt that Marmad is the same as Maru-Mara which is referred to in the Ghaṭayâl inscription No. II. above and includes Jaisalmer and part of Jodhpur state¹⁶. Barus is undoubtedly Broach and Mandal probably denotes Mandor. It is now a well known fact that Jurs was an Arabic corruption of the Gurjara and Bailaman probably refers to their circle of states referred to in the Inscription No. I. as *Vallamandala*. It thus appears that the Arabian army under Junaid conquered the

(14) Vienna Or Congress, Arian section, p. 230.

(15) Elliot, History of India Vol. I p. 126.

(16) Ep. Ind. Vol. IX. p. 278.

main Gurjara states in the North as well as the feudatory state of Broach in the South.

This catastrophe must have taken place in about 725 A. D., for the expeditions were undertaken during the Caliphate of Harham (724-743 A. D.) and Junaid was succeeded by Tamim in 726 A. D.¹⁷. It dealt a deathblow to the power and prestige of the dynasty of Harichandra and its immediate effect was the conquest of Lâṭa by the western Châlukya prince Avani-Janâśraya Pulakēśi, who successfully resisted the Arabs. The remoter consequences were still more serious. Out of the deadly conflict with the Arabs emerged a new Pratîhâra Power which was destined to cast the old one into the shade.

The Gwalior inscription of Bhoja records the fact that Nâgabhaṭa, the founder of the family, defeated the myriads of soldiers of the Mlēnccha king of Valava (Valava-mlēncchâ-dhipâ-kshauhiṇî). As Vatsaraja the grand-nephew of Nagabhaṭa was ruling in 783-784 A. D., the latter must have flourished about the period of the Arab expeditions referred to above. It therefore appears that shortly after the Arabs had conquered the Gurjara states they were defeated by this new Pratîhâra chief, and if, as I suspect, Valava is identical with the Valla over which the dynasty of Harichandra ruled and which apparently was the leading state in the Gurjara circle, known after it as Vallamandala there was apparently a successful rising of the Gurjaras against the Arabs who had conquered their territory and occupied it with their forces. This is fully confirmed by the Arab historians themselves. Thus Al Biladuri says, that in the days of Tamim, who succeeded the

(17) Elliot, History of India Vol. I p. 126.

Arab general Junaid in the year 727 A. D. "the Mussulmans retired from several parts of India and left some of their positions¹⁸." As the Mussulmans still retained Sind they could only have retreated from the states conquered by Junaid.

The Gurjara state was thus freed from the Muslim yoke but the balance of power was destroyed. It was natural that the new chief who won the laurels in this war of liberation should aspire to the supreme position, and a contest between his family and the dynasty that so long held the chief power was almost inevitable under the circumstances. The Inscription No. I. preserves some echo of this struggle. It tells us in verse 19, that Śiluka, who was the protector of Vallamāṇḍala and had the ensign of Umbrella defeated Devarāja, and secured the allegiance of the Bhaṭṭi confederacy. As Devarāja of the Imperial Pratīhāra line was the father of Vatsarāja who, according to Jaina Harivamśa, was ruling in 783-784 A. D., his date may be fixed at about the middle of the 8th century A. D. Śiluka, who belonged to the eighth generation, must have also been ruling about the same time and the identity of the two Dēvarājas may therefore be at once presumed. This presumption almost becomes a certainty when we remember that Śiluka is described as the chief of the Bhaṭṭi confederacy in the Inscription No. I. whereas Vatsarāja is said in the Gwalior inscription to have wrested the empire from the famous Bhaṇḍī clan. A careful study of the two inscriptions seems to show that Nāgabhaṭṭa, the founder of the Imperial Pratīhāra line successfully resisted the Arab invasion which proved so disastrous

(18) Ibid.

to the other Pratîhâra line. His successors were not slow to take advantage of this favourable situation, and Dêvarâja entered into a contest for supremacy with Šiluka. He was defeated by the latter, but his son Vatsarâja pursued his policy with signal success and wrested the empire from the family of Harichandra. These successive changes are fully reflected in the Inscription No. I. According to our scheme of chronology Chanduka was on the throne when the Arab invasion took place. It becomes therefore a significant fact that whereas he is passed over with merely conventional praises, tribute is paid to the prowess and heroism of his successor who regained the ensign of Umbrella by defeating Dêvarâja. Then, again, the two successors of Šiluka are said to have taken to religious life and not a single act of prowess or heroism is attributed to any of them. This was apparently the time when their rivals gradually established themselves in the position of the recognised suzerainty over the entire confederate clans which was so long enjoyed by them.

The line of Harichandra retained possession of their own kingdom, although they lost their supreme position and gradually seem to have reconciled themselves to their new situation. Kakka, the great grandson of Šiluka, appears to have accompanied the new suzerain power in its wars of conquest. For, we are told in the verse 24 of the Inscription No. I that he fought with the Gaudas at Mudgagiri or Monghyr. Apparently he fought as feudatory of one of the imperial Gurjara Pratîhâra kings probably Bhoja, who is said in the Gwalior Inscriptions to have defeated the Lord of Vaṅga. The existence of the family as a ruling power can be traced to about 918 A. D. when

the Ghaṭayāla inscriptions of Kakkuka were incised but its end is involved in obscurity.

Is it not likely that the Gurjaras of Rajputana went out of existence as the imperial Pratīhāra dynasty was thrown back upon the Marudēśa by the ruling power of the Rāshṭrakūṭas ?

JĀNGALADEŚA AND ITS CAPITAL AHICHHATRAPURA.

BY
HAR BILAS SARDA
1. JĀNGALADEŚA.

Jāngaladeśa is mentioned in the Māhabhārata but it is not stated where it was situated (Māhābhārata, Bhishma Parva, Adhyāya 9, 39¹). The physical characteristics of Jāngaladeśa as given in Sanskrit works (Śabdakalpadruma Kosha, Vol. II, p. 529²) are “Scarcity of water and grass ; high winds ; intense heat, and abundant grain production after rains.” It is also stated (See Bhāva Prakāsha, and Śabdakalpadruma Kosha, Vol. II, p. 529³) that in Jāngaladeśa, the sky remains clear and such trees grow as require little watering for their growth ; for instance, *Sami* (शमी) (*prosopis spicigera*), *Karira* (*Capparis aphylla*), *Bilva* (*Aegle marmelos*), *Arka* (*Calotropis Procera*), *Pili* (*Salvadora persica*), and *Karkandhu*.

2. The above description shows that Jāngaladeśa must have been situated somewhere in the sandy plains of Rajputana, where, owing to comparative scarcity of rainfall, the sky is clear ; where water and grass are scarce ; where high winds blow and constantly shift sand-hills from one place to another ; where intense heat keeps the air in constant vibration during

१ तत्रेमे कुरुपांचालाः शाल्वा माद्रेयजांगलाः ।

२ स्वल्पोदकतृणो यस्तु प्रवातः प्रचुरातपः ।
स ज्ञेयो जांगलो देशो बहुधान्यादिसंयुतः ॥

३ आकाशशुभ्रं उच्चश्च स्वल्पपानीयपादपः ।
शमीकरीरबिल्वार्कपीलुकर्कन्धुसंकुलः ॥

a part of the day in the hot season ; and where the principal trees are the *Samī* (*Khejda*), (the *Karria Ker*) and the *Pilu*. A part of the present Bikaner State in Rajputana is still termed Jāngalu which is the Prākṛita form of Jāngala. The kings of Bikaner, evidently because they ruled over the country which in ancient times was known as Jāngaladeśa and a portion of which is still known as Jāngalu are called by the *Bhāts*, (the bards of Rajputana), as “*Jangaladhar Patasāh*,” which means Pādshah, or king of the Jāngaladeśa. “Jai Jangaldhar Bādshah” is the inscription borne on the coat of arms of the Rulers of Bikaner, and this would show that a portion at least of the old Jāngaladeśa is incorporated in the dominions over which the Māhārajās of Bikaner hold sway.

3. Mr. Nando Lal Dey has not included in his “Geographical Dictionary of Ancient and Medieval India,” the name of Jāngaladeśa, but mentions *Kuru Jāngala* as one name which he describes as :—

“A forest country situated in Sirhind, north west of Hastināpura. It was called Śrīkanṭhadeśa during the Buddhist period. Its Capital was Bilāspura. It was included in Kurukshetra” (p. 15).

4. This view of Babu Nando Lal Dey cannot be accepted as correct for two reasons. In the first place, there is no warrant for the assumption that Kuru Jāngala was the name of one Country, for the Māhābhārata regards Kuru and Jāngala as two separate countries (Māhābhārata, cited above). Secondly, the Kuru and Jāngala countries were never known as Śrīkanṭhadeśa. Bāṇbhaṭṭa in his *Harshacharita* (translated into English by E. B. Cowell M. A. and F. W. Thomas, M. A., p. 73 and note 6) gives the

name of Harsha's ancestral Kingdom as Śrikanṭha, by which is meant, the Kingdom of Thāneśvra.

5. The compound terms, "Kuru Jangala" and "Kuru Pāñchāla" which occur in Sanskrit works, indicate a certain relationship between the two component parts of the two terms, and evidently the same relationship exists between Kuru and Jāngala as between Kuru and Pāñchāla. Kuru and Pāñchāla were admittedly two separate *desa* or territories which lay adjacent to each other. Kuru and Jāngala must similarly have been two separate territories and the term Kuru Jāngala means or expresses a political, economic, or geographical unit or idea as much as the other term "Kuru Pāñchāla". As Pāñchāla was situated on one (the eastern) side of Kuru, it is probable that Jāngala was also situated on another side (south) of it and both Kuru and Jāngala formed one portion of Bhāratavarsha for some political or geographical purpose.

6. The physical characteristics of Jāngaladeśa given above and the use of the term "Kuru Jāngala" lead us to believe that the country lay towards the south or south-west side of Kuru, comprising parts of the Bikaner and Jaipur States and the northern part of Mārwār territory. The road from Dwarka to Hastinapura is said to have passed all along these parts the journey terminating with the passing up of the Kuru-Jāngala in the Bhāgavata. The present day road seems to keep the same course. Kuru-Jāngala may mean Jāngala adjoining Kuru in contradistinction to other portions of Jāngala or other Jāngalas.

7. The boundaries of countries vary from time to time, and expand and contract, as the political [F.O.C. II 52].

power of their rulers increases or decreases. It is therefore difficult to lay down with any precision, the limits of the Jāngaladeśa. We know that the Chauhāns ruled over a large part of Rajputana from the 7th to the 12th Century A. D. and that the country they ruled over was called Jāngaladeśa or Sapādalaksha (1½ lacs). Of these two names, Jāngaladeśa is the more ancient one as, it is found in the Māhābhārata, while the other, Sapādalaksha, came into prominence only during the Chauhān times. It also appears that the Chauhāns originally ruled over the country round the town of Nāgor, for that part of Rājputana is still called "Śavālak" (vernacular form of Sapādalakaha). As the power of the Chauhāns increased, their kingdom expanded ; and when Sāmbhar and Ajmer became their Capitals, the whole of the country over which their rule extended came to be called Sapādalaksha or Jāngaladeśa. The eastern (or some) part of Mewar, the major parts of the present Jodhpur, Bikaner, and Jaipur States, the whole of Ajmer-Merwara and Kishengarh, were included in the Sapādalaksha country. That part of Mewar which lies to the east of Chitor and which includes the districts of Māndalgarh, Jahāzpur, Bijolian and others, was under the rule of the Chauhāns, when Ajmer was their Capital, and hence the Mewar fortress of Māndalgarh (Mandalākara) is recorded as situated in the Sapādalaksha country. The *Dharmāmrīta Śāstra* of Ashādhar, who flourished about A. D. 1230, says⁴ :—

"There is a country (called) Sapādalaksha the ornament of which is Śākambhari (Sāmbhar) ; there

4 श्रीमानस्ति सपादलक्ष्विषयः शाकंभरीभूषणः :

तत्र श्रीरतिधाममंडलकरं नामास्ति दुर्गं महत् ।

(Praśasti at the end of the work.)

is in it a great fort called *Mandalākara*" (*Māndalgarh* in Mewar); vide Dr. Bhandarkar's Report for 1883-84, on the Search for Sanskrit Manuscripts p. 390, see also pp. 103-6 of the preface.

The principal victories gained by the Chāululkya (Solanki) king, Kumārapāla, (A. D. 1143 to 1174) were three, and they were achieved by defeating, (1) Arnorāja (Ānāka or Ānā) the Chauhān king of Sapādalaksha or Jāngaladeśa, (Bombay Gazetteer, Vol. I, Part I, pp. 184-85); and (2) King Ballāla of Mālwa (ibid p. 185); and (3), Mallikārjuna, the king of Konkan (ibid pp. 185-86). The inscription of the Vikrama Samvat 1207 (A. D. 1150), found in the Mokalji's Temple at Chitor (Mewar), and published in the *Epigraphia Indica* Vol. II pp. 422-3, while describing the victory of Kumārpāla over Arnorāja (or Ānāka) the Chauhān King of Ajmer," says⁵ :—

"When the King Kumārpāla had defeated the King (Ānāk) of Śākambhari (Sāmbhar, the old Capital of the Chauhāns of Ajmer) and devastated the Sapādalaksha country (line 11), he went to Śalipura (line 12) (Sālera, 4 miles from the Chitor hill), and having pitched his great camp there, he came to view the glorious beauty of the Chitrakuta (Chitor) mountain."

This war took place about Vikrama Samvat 1207 and was undertaken by Kumārpāla to avenge⁶ the

5

महीभृतिकुंजेषु शाकंभरीशः

प्रियापुत्रलोके न शाकंभरीशः ।

सपादलक्ष्मामर्द्य नन्दीकृतभयानकं ।

स्वयमयान्महानाथो ग्राम शालिपुराभिष्ठे ॥

सन्निवेश्य शिंविरं पृथु तत्र त्रासिता सहन भूपतिचक्रम्

चित्रकूटगिरिपुष्कलशोभां द्रष्टुमार नृपतिः कुतुकेन ।

6 Indian Antiquary for 1912, p. 196.

insult and ill-treatment to which Kumarapāla's sister, Dēvalādēvi, the Queen of Arnorāja, was subjected by her husband. Dēvalādēvi was offended by some remark of Arnorāja and accused him of want of manners as he belonged to the Jāngala country. This enraged Arnorāja who gave her a kick. She left Ajmer and went to her brother who invaded Ajmer (*Kumārpāla Charita* by Jinamandanopādhyāya).

The Viśalpur inscription of Emperor Pr̄ithvirāja, dated Samvat 1244 (A.D. 1187), calls⁷ Pr̄ithvirāja the King of Sapādalaksha country. It says :—

“During the reign of Māhārājādhiraja Pr̄ithvirāja-deva in Sapādalaksha” etc. (Cunningham's Archaeological Survey Reports, Vol. VI, Plate XXI).

Merutunga (मेरुतुंग) in his *Prabandha Chintāmanī*, written in Vikrama Samvat 1361, (A.D. 1304), calls the Kingdom of the Chauhāns, Sapādalaksha in a number of places. (1) While describing the invasion of Gujrāt by the Chauhān King, Vigraharāja, between 973 and 996 A.D. Merutunga says⁸ :—

“On a certain occasion the King of the country of Sapādalaksha came to the border of the land of Gujrāt to attack Mulrāja. (C. H. Tawney's translation, p. 23). (2). The Pr̄ithvirāja Vijaya (Canto V-verse 51) describes this war, as also the Hammir Māhākāvya (Canto II).

7 समस्तराजावलीसमलंकृतपरमभट्टारक ।
महाराजाधिराजपरमेश्वर श्री पृथ्वीराज -
राजदेवराज्ये तस्मिन् काले सबत्
१२४४ थावणपूर्वं सपादलक्षे...

8 कस्मिन्प्यवसरे सपादलक्षीयक्षितिपतिः
श्रीमूलराजमधिषेणाथेतुं गुर्जरदेशसन्धौ समाजगाम ।

(3) The *Prabandha Chintāmanī*, in the course of its account of the invasion of Gujrāt by Arnorāja, undertaken (about Samvat 1200 to 1202) to support the claims of Bāhadā, son of Udayana, (उदयन) and the adopted son of Siddharāja Jaya Sinha, to the throne of Anhālwārā against Kumārpāla, says that “Bāhadā, despising Kumārpāla, made himself a soldier of the King of Sapādalaksha country. He, desiring to make war on Kumārpāla, having won over to his side all the officers in those parts, with bribes, attentions and gifts, bringing with him the King of the Sapādalaksha country, surrounded with a large army, arrived at the borders of Gujrāt.” (*Prabandha Chintāmanī* by Tawney, p. 121).

(4). The *Dvyāśrya* of Hemchandra, written about A.D. 1160, describing this war, says :—

“The Raja of Sapādalaksha whose name was Ānnā, when he heard of the death of Jaya Sinha, though he had been a servant of that monarch, now thought the time was come for making himself known” (Indian Antiquary for 1912, p. 195); also Forbes' *Rasmala* p. 142, which gives the *Dvyāśrya*'s account of the war. Thus, while both the *Prabandha Chintāmanī* and the *Dvyāśrya* style Ānāk or Arnorāja as the King of the Sapādalaksha country, Someśvara in his *Kirtikaumudi*, written about A.D. 1225, (Vikrama Samvat 1282, (Canto II Verse 46) calls this enemy of Kumārpāla “Jāngalakshonipāla” or the Lord of Jāngaladeśa⁹) while in his other work, *Surathotsava* (Canto XIV, Verse 22), he calls¹⁰ the same Ānāji “Sapādalakshapati” “or King of Sapādalaksha.”

9 जाङ्गलक्षोणिपालेन व्याचक्षणैः पैरेरपि (canto. II, 46);

10 दृष्टः सोपि सपादलक्षनृपातिः पादानाति शिक्षितः (canto XV, 22)

Arisimha in his *Sukrita* (सुकृत) *samkirtana* (Canto II, verse 43) calls Arnorāja as "Jāngalēśa or the King of the Jāngaladēśa." It is thus clear that the Kingdom over which the Chauhāns of Ajmer ruled was called Sapādalaksha as well as Jāngaladeśa; that *Sapādalaksha* and *Jāngaladeśa* were not two separate countries but one and the same country, and that the country known in ancient India as Jāngaladeśa came in latter times to be called Sapādalaksha. That the country continued to be called Siwālak—the Hindi rendering of Sapādalaksha—even during the Pathān times is clear from the *Talevāti Nasiri*, which always terms the territory of Nāgor as Siwalak country.

II. THE CAPITAL OF JĀNGALADEŚA.

The name of the Capital of Jāngaladeśa is not recorded. Rai Bahadur P. Gauri Shanker Hira Chand Ojha, during a visit paid in 1905 A. D. to Māndal (in Mewar) to see the collection of manuscripts and copies of old inscriptions, left by Yati Gyānchandra, *guru* of Colonel James Tod—the illustrious author of the *Annals and Antiquities of Rājasthan*, found in the collection, a paper containing the names of 26 different countries and their Capitals. No. 10 on that list is Jāngaladeśa and its Capital (or principal town) is stated to be "Ahichhatra". Now, there are more towns than one which bear this name : *vide* Bombay Gazetteer, Vol. I, Part II, 560, note 11. The best known town which bears this name and which the famous Chinese Pilgrim Hinen Tsiang calls "O-hi-ch-ta-lo" (*Buddhist Records of the Western World*, Vol. I, p. 200) was the Capital of the northern Pāñchāla country, the ruins of which were stated by General Cunningham (Cunningham's Archæological Survey Reports Vol. I, p. 255) to

be still existing near Rāmnagar, 20 miles from Badāun in the United Provinces. This Ahichhatra, however, could not have been the Capital of Jāngaladeśa. The Capital of Jāngaladeśa must have existed somewhere in the heart of Rajputana.

The genealogies of the Chauhān Rulers of Sambhar and Ajmer declare that the founder of that family was one Vāsudeva and his first visit to Sāmbhar or Śākambhari is described in the third and the fourth cantos of the Epic Poem, *Prithvirāja Vijaya*, the most reliable work on the early history of the Chauhāns.

"Vāsudeva one day went on a hunting expedition. Being impelled by good omens, he had a lofty palace built there which no one else was allowed to enter. One day, after spending the mid-day in the hunt, he retired to his palace, where he found a divine being, decked in jewels, sleeping on his bed. The King was very much surprised, and inferred that the sleeper was a Vidyādhar from a magic pill which slipped from the sleeper's half-open mouth and rolled towards the King's feet. Suddenly the Vidyādhar awoke, and as the power to fly in the air which these celestial beings possess depends on the possession of the pill, he was disconsolate at losing it. The King offered him the pill at which the Vidyādhar complimented him on his magnanimity in not having taken advantage of his sleep to get possession of a charm of such power, even when lying at his feet. He then told the King that his father was a Vidyādhar named Śākambhar, whose devotions in that forest had pleased the goddess Pārvati so much that she resided there under the name Śākambhari ; that the speaker often paid visits to the shrine, the fruit of which he had obtained in

meeting such a high minded personage as the King. He then told the King to send away his army, and at sun-set to plant his lance in the ground and ride away towards his capital without ever looking back, adding that that would be some small recompense to the King for his favour to the Vidyādhar. Saying this, the Vidyādhar vanished. The King did as he was told. While he was riding away at full speed he heard the sound of ocean's waves behind him, and forgetting the advice of the Vidyādhar he looked behind to see what was following him. The Vidyādhar appeared, this time in the sky, and said that that was to be a salt-lake.

Kurukshtera (five Yojans=40 miles in extent) conferred benefit in the next world only, while the Salt-Lake would bring renown to the King's line, as it would yield advantages in both the worlds. He added that the goddess Śākambhari and Āsapuri, the family deity of the King, would keep up the lake, which would always remain in the possession of his family. The Vidyādhar then disappeared, having first pointed out to the King that he had come to the shrine of Śākambhari, to whom he should now go to pay his respects. The King dismounted and tasted water of the lake, and having spent the night not very far from the feet of the goddess, started for his Capital the next morning."

This account of the origin of the Salt-Lake of Śambhar shows that Vāsudeva had come to that place from some distance, that the journey had caused him fatigue, that he had been a stranger to the name Śākambhari, that Śākambhari or Śāmbhar was not the Capital of the Chauhāns till Vāsudeva's reign

and that the Chauhān Kings came to be called "Śākambharīshwara" (Lord of Śākambhari) sometime after Vāsudeva's reign. We have now to see which town was the residence of the Chauhān Kings before Śākambhari became their Capital. In the Chauhān genealogies, the name of Śāmantarāja (or Samanta) comes next to Vāsudeva, but whether Śāmanta was a son of Vāsudeva or only a successor, is not recorded. The *Prīthvirāja Vijaya* too (Sarga 5, Sloka 7) mentions Śāmantarāja and says that he was Vāsudeva's kinsman and successor.

The Bijolian Rock inscription of the time of the Chauhān King *Somesvara* dated the Phalgun Vadi 3rd, Samvat 1226 (A.D. 1170) gives the Chauhān genealogy from Śāmanta to *Somesvara* and states that the Capital of Śāmanta was Ahichhatrapur. (Journal of the Asiatic Society of Bengal, Vol. LV, Part I, page 41). The *Prīthvirāja Vijaya*'s account of Śākambhari has already shown us that Vāsudeva's Capital was some town other than Śākambhari, and that it was situated at some distance from it. We have now the following facts before us :—

- (1) That the Capital of Śāmantraja was Ahichhatrapura ;
- (2) that Ahichhatrapura was a town distinct from Śākambhari ;
- (3) that Ahichhatrapura, the Capital of the early Chauhāns, was situated at a distance from Śāmbhar but within a day's hard ride from it. The town that best answers to this description is Nagor (in Mārwār) which is an abbreviated form of Nāgapura. This town is situated at a distance of about 65 Miles to the northwest of Śāmbhar. The name of

Nāgapura means the same thing as Ahichhatrapura (Nāgapura means 'the city of the Serpent'; and Ahichhatrapura, the city whose *chhatra* or protector is the serpent). Nāgapura and Ahichhatrapura are thus synonyms. In Sanskrit, different names having the same significance are sometimes given to the same object. For instance, while the Harsha stone inscription of A.D. 973 calls the successors of the Chauhān King Gūvaka as Chandrarāja (Epigraphia India Vol. II p. 117), the Bijolian Rock inscription of A.D. 1170 (quoted above) calls him "Śaśinripa," both meaning the "Moon King."

The first Capital of the Chauhān Kingdom of Sapādalaksha must therefore have been Nāgapura or Nāgor. The territory round Nagor is still called "Śvālak" (Sapādalaksha) by its people, and as Jāngaladeśa is the ancient name of Sapādalaksha territory, its Capital Ahichhatrapura was no other town than the modern Nāgor in Mārwār, which is a place of great antiquity.

TECHNICAL SCIENCES.

A NOTE ON SIMHA-BHŪPĀLA, THE REPUTED
AUTHOR OF A COMMENTARY ON THE
SAMGĪTA-RATNĀKARA.

BY
P. R. BHANDARKAR.

In his introduction, the author of the *Samgīta-Ratnākara* mentions the names of several writers on music and dancing, but with the exception of a recension of the *Bhāratīya-Nāṭyaśāstra* and a small tract called *Nāradīya-Śikshā*, their works are not yet available. This has made it impossible to follow the development of those arts. The only parts by which these non-extant works are known to us are the quotations from them found in the commentaries on other works such as the *Samgīta-Ratnākara*. Of these commentaries the one by Kallinātha,¹ who lived about the middle of the fifteenth century, has been published in the Ānandāśrama Series. The first *adhyāya* of another was printed and published at Calcutta in 1879. In the introductory verses of this the name of the author is given as सिंहभूपति, श्रीसिंहभूप or सिंह. In this edition at the end of each division of the *adhyāya* occurs the Colophon—इति श्रीसिंहभूपालविरचितायां संगीतरत्नाकरटीकायां संगीतमु-
धाकराख्यायां..... This commentary is in certain places better than that of Kallinātha, but its special value lies in the quotations from older authors cited in it. Who was this सिंहभूप and when did he flourish? The editors of the printed book say in the preface that he “lived some time between the

¹ R. Simon, *Quellen Zur indischen Musik* Z. D. M. G. 1901, 131. Mr. R. Ramasastry says that Kallinātha wrote this commentary in 1553, A. D., but has not mentioned his authority (vide *The Indian Music Journal* Vol. I, p. 32).

twelfth and the thirteenth century", without giving grounds for the statement.

R. G. Bhandarkar in his report on the Search for Sanskrit Manuscripts for 1882-83 says :—"The last of the four is a commentary on the *Samgīta-Ratnakāra*. (No. 406).....The commentary is attributed to a King of the name Siṅga, who is spoken of as the supreme sovereign of the Āndhra circle. Who this Siṅga was it is difficult to say ; but it is not unlikely that he was the Yādava prince Singhāṇa who reigned at Devagiri.....A commentary on this work (the *Samgīta Ratnākara* of Śāringadeva), therefore, written either by himself (Śāringadeva) or some other court dependant may have been dedicated to the King". Similarly in his *Early History of the Dekkan* he says :—"There is a commentary on this work (the *Samgīta-Ratnākara*) attributed to a King of the name of Siṅga who is represented as a paramount Sovereign of the Andhra circle. This Siṅga appears in all likelihood to be Singhāṇa ; and the commentary was either written by him or dedicated to him by a dependant, as is often the case".² The printed book, however contains a quotation from Kallinātha,³ which made me say that Siṅha-Bhūpāla could not be Singhāṇa, who flourished early in the thirteenth century.⁴ Recently, however, I had an opportunity to examine a defective manuscript of Simha-Bhūpāla's commentary from the collection of the R. A. Society of Bengal, marked 781/3. This manuscript does not contain the quotation from Kallinātha, referred to above, which would appear to be only an interpolation, probably by the editors themselves, judging from the method they say they

2 *Loc. cit.* pp. III-II2.

3 *Loc. cit.* p. 156.

4 *The Indian Antiquary*, July 1912, p. 159, foot-note 5.

have adopted in editing a portion of this prakaraṇa.⁵ This discovery thus once more left the question of the authorship of the commentary *in statu quo*. Fortunately, however, light has been thrown on the matter from other sources.

In the printed book beyond the bare name the colophons give no information about the author (*vide supra*). But the colophon at the end of the manuscript, noticed by R. G. Bhandarkar, runs as follows :—

इतिश्रीमद्भूपालाधीश्वरप्रति गण्डभैरव श्री अनवोतं
.....नभुजबलभीम श्रीसिंगभूपालविरचितायां
संगीतरत्नाकरटीकायां संगीतमुधाकरोद्यायां
प्रवंधाद्यायथतुर्थं समाप्तः ।

In the Calcutta Manuscript we have the following colophons :—

(1) इति श्रीमद्भूपालाधीश्वरप्रति गण्डभैरव श्रीयनवान
नरेन्द्रनन्दन भुजबलभीम श्रीसिंगभूपालविरचितायां
संगीतरत्नाकरटीकायां मुधाकरोद्यायां रागविवेकाध्या-
यो द्वितीयः ॥

(End of Rāgavivekādhyāya).

(2) ०भैरवश्री अमरेन्द्रनन्दन भुवबलवन्यामधीसिंह
(End of Prakīrṇakādhyāya).

(3) ०द्वंद्वमदाधीश्वर प्रतिगंड भैरव श्रीयरनवोननरेन्द्र-
नन्दनभुजबलभीमश्रीसिंह

(End of Vādyādhyāva).

The late Prof. M. Sheshagiri Sastri in his report on the Search for Sanskrit and Tamil Manuscripts for 1896-97 notices at some length a manuscript work called Rasārṇavasudhākara, which ends in the following colophon :—

इति श्रीमण्डलाधीश्वर श्री अनपोत नरेन्द्रनन्दनबलभुज
बलभीम श्रीशिङ्गभूपालविरचिते रसार्णवमुधाकर
नान्नि नाव्यालंकरशास्त्रे भावकोङ्कासो नाम तृतीयोङ्कासः ॥

⁵ Loc. cit. pp. 162, 1613, 65 and 166.

Since then, the work has been printed and published in the Trivandrum Sanskrit Series. It consists of three Ullāsas or Vilāsas, and the following are the three corresponding colophons :—

(i) इति श्रीमद्भगवत्प्रतिगण्डुभैरवश्रीअन्नपोतनरेन्द्र
नन्दन भुजबलभीमश्रीशिङ्गभूषालविरचिते रसार्णवसुधाकर-
नाम्नि नाथ्यालङ्कारे रजकोळासो नाम प्रथमो विलासः ।

(ii) ०श्रीमदनपातेनरेन्द्र.....नामति.....रसिकोळासो नाम द्वितीये...

(iii) ०श्रीयन्नपोत.....नाम्नि..... भावोळासो नाम तृतीयो...

A perusal of these colophons leaves no doubt in the mind of the reader that the reputed author of both works, viz. the Saṅgīta-sudhākara (commentary on the Saṅgīta-Ratnākara) and the Rasārnava-sudhākara, is the same Śinga.⁶ An account of this Śinga with his genealogy is given at the commencement of the latter work, from which it appears that he lived with his six sons “in a town called Rājāchala (Rachakonḍa), which was the capital of his ancestors, and ruled over the country between the Vindhya mountains and the hill Śrīsaila which is situated in the Kurnool district.⁷ Prof. Seshagiri Sastri⁸ mentions a printed book called Biographical Sketches of the Rajas of Veṅkaṭagiri, compiled from the Palace Records, from which he identifies this King as Singama Nāyadu, who flourished

6. Since writing this note I have discovered that this observation had already been made by the late Prof. S. R. Bhandarkar after an examination of the manuscripts in the State collection at Bikaner. See his *Report of a second Tour* p. 54. Burnell's remark, quoted therein, that “the nominal author is said to have been a Tanjore Prince of the last (18th) century” has proved incorrect, as will be seen below.

7. Report on the Search for Sanskrit and Tamil Manuscripts for the year 1896-97, p. 9.

8. Report on the Search for Sanskrit and Tamil Manuscripts for the year 1896-97, p. 9.

about 1330 A. D. and was called Sarvajña on account of his vast learning and was a great patron of learning.

Mr. M. T. Narasimhiengar, however, says in the introduction to his edition of the *Subhāshita-Nivī* that the late Rao Bahadur K. Vireśalingam Pantulu in his treatise on the Telugu Poets had arrived at the conclusion that this Singama Nayudu was a contemporary of Praudha Devarāya of Vijayanagar (1422-1447). I have neither before me the "Biographical Sketches" referred to above nor R. B. Pantulu's treatise and cannot therefore discuss the comparative merits of their arguments. But some of the additional arguments brought forward by Mr. Narasimhiengar are far from convincing. Thus firstly he remarks that Mallinātha, the great Commentator, is said to have attended the court of "Sarvajña Singama Nāyudu; and as according to R. G. Bhandarkar the former belonged to the 15th Century the latter could not have belonged to the 14th. If the reader, however, refers to Bhandarkar's Preface to the *Mālati-Mādhava*, he will find that Mallinātha is represented there as having flourished after the middle of the 14th Century, so that the period assigned to Sarvajña Singama Nāyudu by R. B. Pantulu does not agree with the tradition of Mallinātha's having attended his court.

Secondly the epithet राजमहेन्द्रनगरस्थित in the commentary *Ratnapetikā*, even if its correctness be granted, does not conflict with the earlier date, as the Reddi rulers took possession of it sometime between 1340 A. D. and 1369 A. D.

PRINCIPLES OF MELODIC CLASSIFICATION IN ANCIENT INDIAN MUSIC.

By V. G. PARANJPE.

For a proper understanding of ancient Indian music it is absolutely necessary that the technical terms employed in Bharata's *Nāṭyaśāstra*, our oldest authority on profane music, should be correctly interpreted and the Śrutis and notes accurately ascertained. Another matter of equal or even greater importance is that the difference in aesthetical valuation between notes belonging to the relative pitch and those belonging to the absolute pitch should be realized. Not until this is done could we proceed to deal with the Melodic classification of Bharata.

We shall take the subject of absolute and relative pitch first as of paramount importance to the Indian student of ancient Indian music. The Indian ear is accustomed to the relative pitch and is not in a position to appreciate the difficulties and the complexities of the absolute pitch, to which the Europeans are accustomed. Komala Dha for the Indian is always a relation, a definite interval from an ascertained basic note or key with its definite aesthetical associations, the note and the aesthetical value being inseparably connected for him. D, E, or F, on the other hand, in the absolute pitch, is a note, with a pitch determined with reference to a standard note which may or may not be the key, and *without a clear aesthetical significance*, until its relation to a key-note is determined. In the relative pitch, the key-note is always Sa or Doh or whatever else is the designation,

although it may be a hundred different sounds,¹ and the other notes signify key relations, i.e. intervals from the Sa or Doh ; in the absolute pitch, notes mainly signify pitch and their relationship with the key will have to be expressed by its proper designation in the relative pitch in order that an ear accustomed to the latter alone can value it correctly. In European music there is little confusion between the absolute and the relative pitch, as there are separate designations for the notes in each, and both systems are side by side in use ; while the case is otherwise in India. In modern works on Indian music we have the relative pitch exclusively in use, while in old music the absolute pitch clearly was in vogue, since Ma was the standard note² for tuning and Sa was not a designation of the key-note ; in fact Sa was often elided in the partial scales. The Nāradiya Śikshā³ with its standard notes consisting of the cries of the birds and animals would even point to a rigid pitch,⁴ but in the Pāṇiniya Śikshā and in Bharata's Nātyaśāstra⁵ where the same note is described as standing in a variable capacity, we find the rigid pitch having disappeared and the ordinary absolute pitch having taken its place. The Saṅgīta Ratnākara, on the other hand, and even a late work like the Rāgavibodha, appear to use both pitches, indiscriminately on occasions, and represent the transitional period. The two systems of notations not

1 See, Curwen, How to read music, P. 16.

2 cf. मध्यमस्तरासंसर्गः...प्रवेशो वा. in Bharata's Nātyaśāstra to be explained later. References in this essay to Bharata are to Nirnayasagar Edn. (1894) ch. xxviii.

3 cf. मधूरचातकच्छागक्रोऽचकोकिलदर्दुराः । गजश्च सप्त षड्जादीन् क्रमादुक्षारयन्यस्मी ॥

4 cf. उदात्ते निपादगान्धारौ अनुदात्त ऋषभैवतौ । स्वरितप्रभवा हेते षड्जमध्यमपथमाः ॥

5 cf. श्रुतिं तामेव पञ्चमवशात् षड्जग्रामिकीं कुर्यात् । p. 304, l. 10; धैवतीकृतेगान्धारे (p. 305 l. 24).

having had a parallel course, one as a matter of fact having insidiously supplanted the other, and the designations Sa, Ri, Ga, etc. being common to both, the confusion is likely to be very serious⁶ and in reading the old notation we must always see what a particular note stands for, for the pitch or for an interval, especially, what Sa stands for, for a note or for the key note, and then only can we do justice to the melody before us.

Coming now to the interpretation of old musical terms we shall first turn to the Grāmas, the Mūrchchhanās, the Śrutis and the Svaras. Shadja and Madhyama are the two Grāmas recognized by Bharata, the latter being differentiated from the former by its diminished fifth. The Grāma was a set of seven notes of which the intervals were not varied, except by the Kākali and Antara notes, which were only grace notes sparingly used and only in the Āroha, the Kākali serving to vary the fourth in a single Jāti and the Antara varying the sixth and seventh in the Pañchama and Madhyama respectively.⁷ The Vikṛita notes apparently belong to a later period, when the liberties contemplated in Bharata V-35⁸ were freely taken and new Mūrchchhanās⁹ and new Svaras came to be employed, and when the Grāmas themselves, their number not

⁶ Mr. Deval's paper on the Bhinna Shadja read before the Bhandarkar Institute for instance, was vitiated by his having understood म the न्यास in its modern value of 498 cents, while the value should have been 0.

⁷ cf. Bharata, the portion on p. 307 from स्वरसाधारणं दिविष्ट द्वैप्रामिक्यं to end of v. 39. See also the table of Jātis towards the end of the essay.

⁸ साधारणकृताश्वैव काकलीसमलकृताः । अन्तरस्वरसंयुक्ता मूर्च्छना ग्रामयोद्देयोः ।

⁹ cf. मत्स्या quoted in सं.ख. pp. 60—61; also मेघदूत II. 26; माघकाण्ड I, 10; कुमारसं. VIII 51 (?).

having correspondingly increased, could not serve their purpose well and so fell into disuse.

The Grāma notes in their dynamic aspect, as a succession of notes each with an aesthetic association by reason of its relationship with the key would form a Mūrchchhanā, a musical scale. Scales of seven notes were called Mūrchchhanās proper, while hexatonic and pentatonic scales were called Tānas.

In the scales we have to do not merely with notes, but with musical intervals, which, as we shall see later on, are as numerous and varied as in modern music. The Shadja Grāma scale for instance, with Ri, as the key,

Ri Ga Ma Pa Dha Ni Sa Ri
 (value in 182, 294, 498, 702, 884, 996, 1200 182,
 cents)

when transported gives the scale

Sa	Ri	Ga	Ma	Pa	Dha	Ni	Sa
0	<u>112</u>	<u>316</u>	<u>520</u>	702	<u>814</u>	<u>1088</u>	1200

where we have five vikṛita intervals, while the ancients would still regard the notes as Śuddha.

A brief mention, at this stage, of the method of ascertaining the mathematical values of the Grāma notes and the twenty-two Śrutis, will not be out of place. The all important passage in Bharata on p. 304 and verse 24 on page 303 are our main authorities here. The value of Ma and Pa are fixed by physical laws to be of 498 and 702 cents respectively. Now if the four Śrutis in the subtractions of page 304 be Y, Y', Y'', and Y''' respectively

$$Y + Y' + Y'' \times Y''' = Pa - Ma = 702 - 498 = 204$$

$$- Ma - Ga = Sa - Ni$$

$$\therefore Ga - 498 - 204 = 294, \text{ and } Ni - 1200 - 204 = 996 \text{ (i)}$$

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$$Y+Y' = Ga-Ri = Ni-Dha \quad (ii)$$

$$Y+Y'+Y'' = Ri(-Sa) = Dha-Pa \quad (iii)$$

$$\text{If } Ri = X, \text{ from v. 24 } P'a = Pa-Y = Ri + 498$$

$$\therefore 702-Y = X+498$$

$$\therefore X+Y = 204 \quad (iv)$$

The Svaras and Śrutis might now be written in columns to denote each revised tuning.

	$-(Y)$	$-(Y+Y')$	$-(Y+Y'+Y'')$	$-(Y+Y'+Y''+Y''')$
Sa o	(1st Subt)	(2nd Subt)	(3rd)	(4th)
Ri. (3rd Śr)	(2nd Śr)	(1st Śr)		
$Y+Y'+Y''=X$	$Y'+Y''$			$O = Sa$
Ga (5th Śr)	(4th Śr)			
$2Y+2Y'+Y''=294$	$Y+2Y'+Y''$			(Ri)
Ma 498(9th Śr)	8th	7th	6th	(294=Ga)
Pa 702	(12th)	11th	10th	(498=Ma)

Now

$$X = Y + Y' + Y''$$

$$\text{While } X+Y=204=Y+Y'+Y''+Y''' \quad (\text{cf. i})$$

$$\therefore Y'=Y''' \quad (v)$$

$$\text{Also } Ga=294=2Y+2Y'+Y''=X+Y+Y'=204+Y'$$

$$\therefore Y'=90 \quad (vi)$$

$$\text{And } 2Y+Y''=294-2Y'=114 \quad (vii)$$

If no Śruti can be less than of 20 cents then Y is greater than 20 and less than $\left(\frac{114-20}{2}=\frac{94}{2}\right)=47$ (viii).

And if $Ri+Y=204$, Ri must be greater than $(204-47)=157$ and less than $(204-20)=184$... (ix).

Now by the laws of sound the only interval between 157 and 184 cents that could be utilised in music is of 182 cents $= \left(\frac{10}{9}\right)$ because the fraction contains the smallest integers available and then again by

fitting in the figures in the columns of Subtractions above with R_i equal to 182 and to any intermediate figure say 160, we shall see that in the latter case we have to sacrifice at least six of the known musical intervals up to the fifth.

0	22	90	70	22	0	44	90	26	44
182	160	70	0		160	116	26	0	
294	272	182			294	250	160		
498	476	386	316	294	498	454	364	338	294
702	680	590	520	498	702	558	568	542	498

This appears to be a convincing proof for the equation $R_i = 182$. The other Śrutis and Svaras will be as follows :—

884	862	772	
(16)	(15)	(14)	
996	974		
(18)	(17)		
1200	1178	1088	1066
(22)	(21)	(20)	(19)

Now we may turn to the interpretation of the difficult word Mūrchchhanā, which has been so far totally assumed to mean a scale. Three sentences in Bharata, page 306 may be pointed out in this connection for being carefully studied.^{9a} The Mūrchchhanā is indicated by reference to the Madhyama note on the Vīṇā. On account of its imperishability the Madhyama is never elided nor its pitch lowered (as is done in the case of other notes for partial scales).

9a मध्यमस्वरेण तु वैणेन मूर्ढना निश्चो भवति । अनाशित्वान्मध्यमस्वरस्य न निय्रहः प्रवेशो वा.....मूर्ढनाप्रयोजनमपि स्थानप्राप्त्यर्थम् । I have made a necessary addition in the second sentence, that of न, which is supported by the reading of the Bikaner Ms. of which there are two copies in B.O.R.I. Library. Cf. also the following verses.

The purpose of the Mūrchchhanās also is to facilitate the judging of a suitable pitch. By Madhyama in this passage is clearly meant the fourth note, for here in speaking of the partial scales, Bharata is alluding to the imperishability of the Madhyama, which is again spoken of in verses 72-73¹⁰. The Mūrchchhanā itself is defined in Bh. V-34¹¹ as the seven notes pronounced in their proper order, while according to the definition of the Sang. Ratn.¹² it is the ascent and descent of the seven notes in order. Neither the descent nor the ascent are essential; but it was by singing the notes thus that a singer's ear would be attuned to the key, the key being of course the note beginning the ascent and ending the descent. What Bharata therefore means to say is that the Mūrchchhanā was mentioned and recognized by the position of the key with reference to the Madhyama. There was a strange superstition about the Madhyama shared by the Indians along with the Greeks¹³, for it was never elided and the vina was tuned by it. It could not have been an absolutely fixed note, but it must have been of a tolerably uniform pitch like the A of European music and the singer could gauge his voice by the relation of the key to the standard note, Ma, since the voice could not be raised higher than Sa in the Tāra register according to ancient theory.¹⁴ Then again if, as stated in Bharata, Ch. XVII, dejection and other mental states are to be expressed by low or

10 सर्वस्वराणां नाशस्तु विहितस्वपजातिषु । न मध्यमस्य नाशस्तुं कर्तव्यो हि कशाचन सप्तस्वराणां प्रवरो ह्यनाशी चैव मध्यमः । गार्थवैकल्पे विहितः सामग्रेपि मध्यमः ॥

11 कमयुक्ताः स्वराः सप्त मूर्धन्यास्त्वभिसंशितः ।

12 क्रमास्त्वराणां सप्तानामारोहावरोहणम्

13 cf. Aristotle, Problems, quoted by Helmholtz, sensation of Tone (Tr. Ulis p. note).

14 Bharata V. 79 ; but the text is corrupt; cf. सं. र. pp. 81-82 [F. O. C. II. 55]

high pitch of the voice, the singer could obtain the desired effect by tuning the Ma accordingly. This then would be the meaning of the last part of the passage.

Now Matanga, from the quotation in Kallinatha's commentary¹⁵, understands Bharata rather differently. According to him the Mūrchchanā is mentioned in the middle register, otherwise the lower or upper register might not be possible. Śārngadeva¹⁶ echoes the explanation of Matanga and Kallinath¹⁷ reiterates the authority of Bharata, while Bharata himself has manifestly meant only the note Ma and not the middle register.

This confusion about the Madhyama Svara of the text has a significance of its own. It signifies that just as with the introduction of the Vikṛita Svaras, the Grāmas ceased to be of use, so also did the Mūrchchhanās, and they survived in music as effete forms, with a sacrificial sanctity.¹⁸ The Sthānaprāpyartham of the text haunted the minds of the later interpreters of a dead art and they understood the Mūrchchhana to denote the pitch rather than the scale. Kallinatha's quotations¹⁸ from older authors would bear out the truth of the preceding remarks. "In regard to the knowledge of the proper Mūrchchhanās for the different Grāmarāgas and of the proper uses for them we have to refer to this quotation from Matanga : Now how do you know the proper Murchchana for these Ragas ? Our answer is

15 मतङ्गोऽपि.....मध्यसप्तकेन मूर्ढनातिदेशः कार्यो मन्द्रतारसिध्यर्थम् । सं. र. p. 47

16 सं. र. p. 47 मध्यस्थानस्थपद्भजेन मूर्ढनारभ्यतेऽप्यिमा ।

17 मध्यस्थानस्थपद्भजेन.....आरभ्यते । कुतोऽयं नियमः । भरतादिनियमितत्वात्तासां यथाह भरतः । मध्यमस्वरेण वैष्णवे(?)न मूर्ढनानिर्देश इति । मतङ्गोऽपि &c.

18 सं. र. p. 164 यामरागादीनां मूर्ढनाविशेषपरिक्षाने विनियोगविशेषपरिक्षाने च मतङ्गोक्तमनुसंधेयम् । तथाथा...। ननु पूर्वोक्तानां रागाणां मूर्ढनाविशेषनिर्देशः कस्माइश्यायते इति चेदुच्यते । आपवचनान्मूर्ढना विश्यायते । तथा चाह कदयपः । शाखा जात्यंशबादुल्यं निर्देश्या मूर्ढना बुधेरिति

the Mūrchchhanā is known from older authorities. Now for instance Kasyapa says : Wise men should observe which of the Anśas recurs oftenest and so determine the Mūrchchanā." It is in accordance with this dictum of Kaśyapa that Śārngadeva himself has apparently understood the Shādji Jāti to have the Mūrchchhanā beginning with Dha,¹⁹ since Ga is there the Bahula Anśa and Sa being now tuned to Dha pitch, Tāra, Ga would in reality be Tāra Sa, which is the theoretical limit of the voice. It was probably on account of the same difficulty that Matanga and Nandikeśvara, according to Kallinath²⁰, had desired twelve Mūrchchhanās to suit the requirements of the doctrine of Mandra and Tāra registers according to the music current in their times.

According to Kallinath's interpretation of Sangīta-Ratnākara, I-4,-14-16,²¹ there were current in Śārngadeva's time Mūrchchhanās that amounted to scales, only were indicated in relative pitch, Sa being the key note. But we find no further mention of them and it is doubtful whether, as Kallinath says, Śārngadeva in these verses was recording the current practice or whether he wanted to suggest a different interpretation of the Mūrchchhanās from that of his predecessors 'Pare Vidus' could very well be employed for suggesting a new interpretation. Kallinatha's very boast that he had solved a riddle only shows that the old system had in his days become thoroughly unintelligible.

19 सं. र. १. ७. ६२. cf. also ६७, ७०, ७२ &c.

20 सं. र. p. 47.

21 लक्ष्यानुरोधेन पक्षान्तरमाह । पद्मस्थानस्थितीन्यथे रजन्याधा: परेविदुः । सरिगमप-
धनील्युत्तरमन्दस्थानेष्व निसरिगमपथेतिरजनीखरानुचारयेदित्यर्थः । पद्मादिमध्यमादीश-
तदूर्ध्वं सारयेकमात् ।स्वस्वश्रुतिसंस्थापर्यालोचनया श्रुत्यन्तराणि प्रापयेदित्यर्थः ।
Mallinatha's quotation from the सं. र. in his comm. on Megh. 66 is to the same effect: स्वराणां स्थापनाः सान्ताः (with स
as the final note) मूर्छनाः सप्त सप्त हि.

That the Mūrchchhanā was a scale in Bharata's time would be clear when we correctly read a very important passage at the bottom of page 305. The reading of the Nirnayasagara edition is obviously defective. Corrected by comparison with the readings of the Bikaner Ms. of which there are two copies in the B. O. R. I. Library the passage would read thus.

द्विविधैकमूर्छनासिद्धिः । तत्र षड्जग्रामे द्विशुत्युत्कर्षद्वैवतीकृते गान्धारे
मूर्छना ग्रामयोरव्यक्ता । अन्तरवशाच् (cf. पञ्चमवशात् p. 304) मध्यमादयो
यथासंस्थेन निषादादित्वं प्रतिपद्यन्ते । तद्वद् मध्यमग्रामे धैवतमार्द्वाद्विविधं
तुल्यश्रुत्यन्तरत्वाच् संज्ञान्यत्वम् । मध्यमग्रामे हि च तुःश्रुतिकमन्तरं पञ्चमधैवतयोः ।
तद्वान्धारोत्कर्षाच्चतुःश्रुतिकमेव भवति । शेषाश्वापि मध्यमपञ्चमधैवतनिषादषड्जर्जभा
मध्यमादित्वं प्राप्नुवन्ति । तुल्यश्रुत्यन्तरत्वात् ।

This would be best explained by a concrete instance. Let us take for example the Mūrchchhanā commencing with Sa of the Shadja Grāma.

0	182	$\frac{294}{386}$	498	702	884	996	1200
---	-----	-------------------	-----	-----	-----	-----	------

That of the Madhyama Grāma with Ma,

498	680	884	996	1200	182	294	498
-----	-----	-----	-----	------	-----	-----	-----

when transposed gives the scale

0	182	$\frac{386}{294}$	498	702	884	996	1200
---	-----	-------------------	-----	-----	-----	-----	------

The two scales, now, will be identical if the Ga in former be sharpened or if the Dha in the latter be flattened by the Śrutis, and thus we could treat a Shadjagrāmic Mūrchchhanā as Madhyamagrāmic and vice versa, the intervals being identical.

It is to be noted here that the question of pitch does not arise at all and the very fact that the latter scale, though a fourth above the former, should be regarded as identical with it would point to Mūrchchhanā having nothing to do with pitch. Secondly in V. 35 the

Mūruchchhanās are described as being susceptible of variation by the Kākali and Antara and the Elisions. The ideal wife of the Yaksha in Kalidas's Meghadūta²² is described as a tone poetess also, having composed a Mūruchchhanā of her own which she however forgets. Māgha²³ similarly describes Nārada's Vinā, Brīhatī, as producing Mūruchchhanās of new grāmas. Mūruchchhanā therefore could not be anything but a scale.

Having thus far discussed the technical terms we may now turn to the main subject. The fourteen full scales of Bharata in relative pitch will be as follows :—

First svara

of
Mūruchchhanā

Shadja Grāma scales

	Sa	Ri	Ga	Ma	Pa	Dha	Ni	Sa
1 Sa	0	182	294	498	702	884	996	1200
2 Ni	0	204	386	498	702	906	1088	1200
3 Dha	0	112	316	498	610	814	1018	1200
4 Pa	0	182	294	498	680	792	996	1200
5 Ma	0	204	386	498	702	884	996	1200
6 Ga	0	204	408	590	702	906	1088	1200
7 Ri	0	112	316	520	702	814	1018	1200

Madhyama Grāma Scales.

8 Ma	0	182	386	498	702	884	996	1200
9 Ga	0	204	386	590	702	906	1088	1200
10 Ri	0	112	316	498	702	814	1018	1200
11 Sa	0	182	294	498	680	884	996	1200
12 Ni	0	204	386	498	702	884	1088	1200
13 Dha	0	112	316	498	610	814	996	1200
14 Pa	0	204	316	520	702	814	1018	1200

of these Nos. 5, 10, 11, 13 and probably 12 have not been used at all in the Jātis. The reason appears

²² Megh. II. 26.

²³ Māghakavya I. 10.

to be that a difference of 22 cents in a note which is either slurred or has not an important relation with the key does not really matter and so Nos. 10, 11, 12 and 13 become superfluous when there are No. 7, 1, 2 and 3, while Nos. 8 and 9 have an individuality of their own on account of their second and third respectively. It is a noteworthy feature of ancient melody that although a Pa of 680 cents is the distinguishing feature of a grāma still that interval has been carefully avoided in music. No. 5 and 11 have therefore been excluded. We see from the scales used in the Jātis again, that there were nineteen musical intervals actually employed in the old music in spite of its eight fixed notes. These are :—

0 or 1200, 112, 182, 203, 294, 316, 386, 408, 498, 520, 590, 610, 702, 814, 884, 906, 996, 1018, 1088.

Two intervals more 680 and 792 could have been employed, but at least the former was felt to be harsh and unfit for melody.

As regards the number of Tānas and Mūrchchhanās on page 306 it appears that the calculation is merely theoretical. There was the table of Jātis before the theorist with a certain number of partial scales in use. The number of Tānas has been calculated accordingly, but the possible variety of scales has not been exhausted, Ma having never been elided and other possible elisions having been left unaccounted for.

Besides the partial scales, there were, according to v 35 and the following prose paragraph, other kinds of scales that were in vogue, but which could not be classified. This part of the Sādhāraṇakṛita scales and the Jāti Sādhāraṇa is obscure and the MSS. differ very

considerably about the latter portion. One thing is clear however from these portions and that is, that a scale varied by the Kākali or Antara is different from the Sādhāraṇākṛita scale. In the paragraph following V. 35, which has been explained above, we have an instance of the latter kind, and there, it is not the Kākali, which might be expected to vary the Shadja Grāma scale, that is used, but a sharpened Gandhāra ; and so also in the Madhyama grāma we see the Dhaivata flattened. These scales, as remarked above, introduced new notes and made the Grāmas and the Mūrchchhanās based on them practically useless and so paved the way for the modern music with the relative pitch.

From the scales we ought to go to the songs and the musical modes. Unfortunately with the exception of the songs preserved in the Sangīta Ratnākara as instances of the Jātis which appear to be very old on account of the sanctity attributed to them, we have no idea of the actual music of ancient India. The Jāti in Bharata is neither a song nor a scale nor a musical mode, but is the genus under which different musical modes would be grouped together. It is different from Mūrchchhanā in as much as the Mūrchchhanā denoted a set of notes which fixed the key relationship in the mind of the singer and therefore was a mere skeleton which would have to be enlivened and, must have an individuality before it could be a Jāti. It is different from a musical mode, the modern Rāga, because several Rāgas, by reason of a common scale of a common mode and of a structure similar in regard to the characteristic phrase, the tone proportion, ornament and movement of tones, although distinct in point of Grāma, Aṁsa, and Apānyāsa, can be,

grouped together, and were so grouped together under the Jātis.

The enlivening and the individualisation of songs in general, and therefore of the Jātis, which represented the underlying principle of melodic classification, have been analysed by the ancients and the Jāti is represented as having ten vital limbs, which are enumerated in the following verse;

प्रदांशौ तारमन्द्रै च न्यासोपन्यास एव च ।
अल्पत्वं च बहुत्वं च पाडवौङ्गिते तथा ॥

Of these Tāra and Mandra, Alpa and Bahu Shādava and Anduva are related terms and so there are really seven characteristics of a Jāti. Graha is the note with which a song opens and Nyāsa is the note with which it closes. Tāra and Mandra signify high and low pitch. As a characteristic of the Jāti they would mean the predominant pitch in the melody; Shādava and Anduva the elision of notes, Alpatva and Bahutva, the tonal proportions. Apanyāsa is the end note in sections of the melody; while Aṁsa is the most important note in a melody,—the beauty-point which gives the melody its individuality and to which all the other notes are subordinated.

Although the characteristics of the Jāti have been mentioned in Bharata as though they were of equal importance, we have to realize the importance of the Nyāsa; for while the others are variable in a Jāti, the Nyāsa in all Jātis except two is invariable and all the Śuddha Jātis are named after it. Nowhere in Bharata have we an indication of the tonics or the key notes of the Jatis although the absolute pitch was in use. As indicated above, in absolute pitch the key

note must be mentioned ; otherwise the key relationship not being ascertained, the aesthetical effect would be impossible. The Nyāsa, described as गीतसमासिकृत् by Śarngadeva and निरपेक्षावसानकारी by Kāllinath, which determines the nature of the Jāti in a way by its invariability, which determined the range of the notes in high and low registers (भरत v. 80), which can never be elided in the partial scales (Sangita Ratnākara page 74) and which is explained by the word ध्रुव in the सं. र., must be the key note. No doubt the Nyāsa is described only as the final note, but in most songs there is a gravitation of the notes towards the key at the end of the song and it is only on plagal modes like Khamāja, where one could even question the propriety of Sa as the key, that the key note is invariably different from the end note. In spite of the wonderful powers of observation and analysis of the ancients it appears that on account of the absence of relative pitch and the consequent simplification of musical thought, the ancients failed to distinguish between the final note and the keynote, and in consequence there are two Jātis which are described as having more than one Nyāsa ; in these cases also from the typical songs of the सं. र. and the elisions mentioned in connection with the partial scales we could easily determine which are the keynotes and which the end notes.

With the Nyāsa as the key we could form some idea of the Jātis although it is impossible to restore a lost music only by a general description. Below I give a table of the Jātis with the note values in relative pitch arranged first according to their names and then according to their intervals, which would show that the Jātis would form distinct melodic modes to-day.

TABLE OF JATIS.

Shādji.	0	182	294	498	702	884	1200	Ni 996
Ār.	0	112	316	702	814?	1018?	1200	Ma520Dha? Ni ?
Gān.	0	204	386	702	906	1200	Ma590	Ni1088
Ma.	0	182	386	702	884	1200	Ma498	Ni1088 (Antara)
Pa.	0	204	520	702	1018	1200	Ga316	Dha906 (Antara)
Dhai.	0	112	498	610	814	1200	Ga316	Ni 1018
Nai.	0	386	498	702	1088	1200	Ri204	Dha 906
Shadjakai.	0	204	408	590	702	906	1088	1200
Shadjodī.	0	386	498	702	996	1200	Ri204	Dha 884
Shadjama.	0	204	386	702	884	1200	Ma590	(Kakali) Ni 996
Gan. Udi.	0	182	386	498	702	996	1200	Dha 884
RaktaGā.	0	204	386	702	906	1200	Ma590	Ni 1088
Kai.	0	204	386	702	906	1200	Ma590	Ni 1088
					498	884	Ga386	
Ma. Udi.	0	182	386	498	702	884	996	1200
Kārmā.	0	204	316	520	702	814	1018	1200
Gā. Pa.	0	204	386	590	702	906	1088	1200
Andhri.	}	0	204	386	590	702	1088	1200
Nanda.								

These should be arranged according to the notes as follows to show that they would form different Ragas to-day.

Ār.	0	112	316 (520)	702			
Dhai.	0	112	(316)	498	610		
Shā.	0	182	294	498			
Ma.	0	182	386	702			
Gān: Udi.	0	182	386	498	702	884	
Ma. Udi.	"	"	"	"	"	996	
Sha. Udi.	"	(204)	386	"	"		
Kār.	0	204	316	520			
Gān. Pa.	0	204	386	590	702	906	
Ānd.	"	"	"	"	"	1088	
Nan.	"	"	"	"	"	"	

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Gān,	}	"	"	"	702	906
Kai.						
RaktaGā.						
Shad. Ma.	"	"	"	"		884
Sh. Kai.	"	"	408	590		
Kai. (2)	0	204	498	702		
Pa.	0	204	520	702	1018	
Sha. Udi.	0	386	598	702	996	
Nai.	"	"	"	"	1088	

The eighteen Jātis would be the source of several Rāgas to-day as the differences of Aṁśa and Apanyāsa always vary. In the melodic effect in the case of Āndhri and Nan. and of Gān., Rakta, Gān. and Kai. the ancients found the change of Aṁśa, Apanyāsa and Sanchāri notes so radically varying the melody that it was found necessary to have two different Jātis where one would have sufficed.

Bharata's book was not a text book on Music. In a treatise on dramaturgy he has just devoted a few pages to music and he has given brief notices of the salient features of the art. But from these even we can very well see how the infinite forms of music must have been analysed and classified by the ancients; how music also exercised the intellect of scholars like the sister arts and philosophy, and how with all the limitations of old music there was a nearly perfect system evolved by them in which we see side by side with the minutest attention to technique and form, a most scientific classification; and this was to be expected from progress which the ancients had made in the arts and sciences & logic and metaphysics. The clear cut generalisations of the Nātyaśastra appear to be the crystalised product of centuries of observation and systematization. Now, while, there is a spirit of re-generation abroad and India is searching her past with a view to improve her

future, one wonders whether instead of the Thāṭas with their woefully unscientific classification and the multiplicity of chromatic notes, we could not return more profitably to the old system of Grāmas, Mūrchchhanās and Jātis. The old Grāmas were discarded because they could no longer serve their purpose, owing to the progress which music had made, but if we rightly understand the old principle of classification, we could arrive at a number of Grāmas—six would most probably do—that would exhaust all the scales in use. But this is a problem of the present with which we here are not concerned.

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ON THE USE OF THE ASTRONOMICAL PHENOMENA IN FIXING THE CHRONOLOGICAL PERIODS IN INDIAN HISTORY.

BY

V. B. KETKAR.

We all agree that facts, however important with regard to the progress of a nation, lose half their importance when mentioned without the time of their occurrence. Our Vedas, Vedāngas, Smṛitis and other ancient works come under this category. They are full of interesting details about consecutive facts, but they never mention the year of their occurrence in relation to any era. The Rigveda which is supposed to be the most ancient of all the records in the world, mentions the phenomenon of a total solar eclipse, and says that the Rishi Atri alone could dispel the darkness, but as solar eclipses occur almost every year their mention without the year of their happening is of little use.

2. It may be mentioned however on behalf of the ancient Āryans that they lived in an age when there was no era. They lived in isolated colonies widely separated from each other. Each colony was a little world carrying on the functions of a civilised life according to the ideas then prevalent. So it is unjust to blame them.

3. Fortunately for the History of the human race, grand celestial eras started by God are running their rounds through all the past ages; and human knowledge of astronomy has, at present, so far advanced and

has reached such a degree of perfection that on the strength of mathematics and the principles of the celestial mechanics modern astronomers like Leverrier and Newcomb, have succeeded in determining their vast period, correct to the nearest century. The period of the human civilisation compared with them is so small that it can form but a small fraction for them. By celestial eras I mean the periods of the revolutions of the equinoctial and planetary nodes, for instance the equinoctial points complete one revolution in 26,000 years, and the nodes of Jupiter's orbit in 90,000 years.

4. Our Vedic Rishis were the keenest observers of the celestial vault. In fact their deities were no other than the luminaries of the sky and the natural elements such as water, fire and lightning. Their records abound in references to the celestial phenomena such as the conjunctions of the planets with the stars and the positions of the stars in relation to the horizon. They have left us legends regarding the stars Polaris, Sirius, Procyon, Canopus, Orion and Vega, and the star-clusters of Pleiades and Hyades. To ordinary men these may seem to be quite trifling but to scholarly minds they are as valuable as the beds of diamonds.

The following lines will fully illustrate what is said above. I have discussed in them on astronomical principles the bearing of each phenomenon to chronology, and have explained its mathematical treatment necessary to the determination of its date.

The first two of the following phenomena have been discussed by the late Mr. S. B. Dixit in his *Bhāratiya Jyotish Shāstra*. I have re-discussed them here somewhat differently in order that the readers

may have in one place all the important phenomena connected with the determination of the pre-historic dates.

*The date of the Solstices mentioned in the
Vedāṅga Jyotiṣha*

(The Equinox in Bharanī).

5. As a first instance I shall discuss the following verse given in the Vedāṅga Jyotiṣha and shall determine the date of the observation from the astronomical evidence contained in it:—

प्रपयेते श्रविष्टादौ सूर्यचांद्रमसायुदक् ।
सार्पार्धे दक्षिणार्कस्तु माघश्रावणयोः सदा ॥

In what follows it must be borne in mind that the Longitudes are sidereal and are measured from the fixed starting point which is 180° distant to the star Spica (Chitra) or $47'$ east of μ Piscium. Also the present time should be understood to mean the year A. D. 1900. The distance from the starting point to the Vernal Equinox was $22^{\circ} 27'$ in A. D. 1900.

The verse mentions longitudes of the Solstitial points as they were observed in the days of Vedāṅga Jyotiṣha and thereby enables us to fix the date of the observation.

The summer Solstice was according to the above verse at the middle point of the asterism Āśleshā. Its longitude was therefore equal to eight and a half Nakshatra space i.e. $113^{\circ} 20'$. At present the longitude of the same point is $67^{\circ} 20'$. It has therefore retrograded ($113^{\circ} 20'$ minus $67^{\circ} 20'$)= 46° , since the recorded observation. As it regresses at the rate of one degree in 72 years, it must have taken $46 \times 72 =$

3312 years or 33 centuries to do the retrograde journey prior to A.D. 1900. It is plain therefore that the date of the observation recorded in the above verse must be B.C. 1400. This is one of the impregnable fortresses of Indian antiquity and all the attempts of the western Scholars like Prof. Max Müller to reduce it have proved ineffectual.

*The date of the first appearance of the star Canopus
on the horizon of latitude 22° N.*

(The Equinox in Āshleshā)

6. We find in the Brīhatsamhitā of Varāhamihira (A. D. 500) the following verse on the movement of the star Canopus (Agastya):—

भानोर्वैतर्मविधातवृद्धशिखरो विद्याचलः स्तंभितो
वातापिर्मुनिकुक्षिभित् सुररिपुर्जीणथ येनासुरः ।
पीतश्चांतुनिधिस्तपोंतुनिधिना याम्या च दिग् भूषिता
तस्यागस्त्यमुनेः पयोद्युतिकृतश्चारः समासादयम् ॥

Meaning:—The milk-white (or water-purifier) sage Agastya who ever adorns the Southern skies, drank off the ocean, digested the Demon Vātāpi who hated the gods, and killed the Rishis by entering and bursting open their bellies. He stopped the growth of the mountain Vindhyačala whose summits had grown so high as to obstruct the passage of the sun.

Shorn of all poetic exaggeration and legendary form this verse tells us that the star Canopus which always revolves in and adorns the Southern skies, appeared for the first time to the Rishis who dwelt on the nothern side to emerge on the ridge of the mountain Vindhya-dri and gradually surpassed it in altitude at its culmi-

nation, since which time the ocean disappeared. (I am unable to trace the metaphorical sense of the story of the demon Vātāpi).

The sudden appearance of a bright star like Canopus upon the Southern edge of the horizon must have been as striking a phenomenon as that of a Nova is to modern astronomers. It must have been therefore considered a great epoch to which the subsequent great events might be referred. The near approach of two planets is looked upon in astrology as a contest between them. In the same way the sudden appearance of Canopus on the summits of the Vindhya was looked upon in a poetical sense, as a sort of race for deciding which of them could rise higher. Fortunately for Canopus his upward speed was at its maximum when it appeared at 22° of latitude (see Table in Sec. 9 infra) and so he came out victorious as the poet imagines

I shall now proceed to explain how the date of the phenomenon can be calculated. But before doing this I must explain the connection between the precession of the equinoxes and the meridional altitude of Canopus, which varies from zero to 38° latitude from the south point on the horizon of a given latitude.

Owing to the precession of the equinoxes the poles of the celestial equator move slowly round the poles of the ecliptic in a small circle of 24° in radius in the course of 26000 years. The star Canopus lies fixed at a distance of 14° from the south pole of the ecliptic. Viewed from Canopus the motion of the southern pole of the equator takes place in an excentric

circle around it. The effect of this is that the distance of Canopus from the south pole varies from $10^\circ = (24^\circ - 14^\circ)$ to $38^\circ = (24^\circ + 14^\circ)$ in the course of 13000 years and back again in the same period. India lies between the North latitudes of 8° and 35° and is therefore well situated within the range of the north and south oscillations of Canopus.

7. I have prepared the following table employing the present position and motion of the equinoxes. It gives the Christian dates of the first appearance and last disappearance of Canopus on the horizons of different North latitudes in the course of its current oscillation.

	First appearance on horizon.	On Latitude North		Last Disappearance on horizon.	On Latitude North
B. C.	11180 ...	10°	A. D.	3870 ...	34°
	9030 ...	17°		6020 ...	30°
	6880 ...	24°		8170 ...	24°
	4730 ...	29°		10320 ...	16°
	2580 ...	33°		12470 ...	10°
	430 ...	36°		14620 ...	10°
A. D.	1720 ...	37°	A. D.	16770 ...	17°

The mountain Vindhya extends East and West along the 22° parallel of latitude. It is easy to deduce from the table by proportional parts that Canopus made its first appearance on the summits of Vindhya about the year B. C. 7500. It is also seen from the table that on the latitude 24° it was first seen in B. C. 6880 and shall be lost sight of there in A. D. 8170 during its return journey towards the South Pole.

The legend about the drinking off of the sea by Canopus.

8. The purānas tell us that the 60000 sons of

the king Sagara in their search for the lost sacrificial horse, entered the Pātāla-Loka (the subterraneous regions) and offended the great Muni Kapila* who was deeply engaged there in his Tapascharyā; that they were all burnt to ashes by the fire of the curse of the angry Rishi; and that the river Ganges moved by the entreaty of Bhagiratha the grand-son of Sagara, consented to come down from the Himālaya to appease the anger of Kapila and to raise his ancestors from their ashes. The esoteric explanation of this legend seems to be that after the appearance of Canopus above the Vindhya mountain a terrible volcanic eruption extending over a vast area took place, laying bare a part of the present low valley of the Ganges which was at that time covered by sea, as far as Haridwar. The angry Kapila in the Pātāla Loka is represented by the subterraneous volcanoes that once raged among the Himālayas, and it is quite plain that the river Ganges should advance as the sea receded back, owing to the gradual upheaval of its bed. The word Sāgara which means a Sea seems to be derived from King Sagara who together with his 60000 sons, stands here for the big sea and its countless gulfs, channels and estuaries that once separated the Himālayas from Central India. The drinking off of the sea by Agastya is therefore another version of the same terrible cataclysm which must have taken place over a vast area a few centuries after the first appearance of Canopus above the Vindhya Mountain, i.e. after B.C. 7500. Geologists might object to this speculation on account of the smallness of the period

* The spot of the hermitage of Kapila Muni is still pointed out not far from Haridwar.

which had elapsed. But they should see* that it carries us 10 thousand years back from the present time.

The date of the battle of Kurukshetra.

9. This problem has been the gordian knot to all the scholars who have hitherto tried to solve it. In our Maharashtra learned men like V. R. Lele, C. V. Vaidhya and my humble self have in vain worried our heads in attempting to solve it. The reason why we failed was our blind faith that the allusions in the Mahābhārata with regard to the planetary places were genuine. But the positions of the planets stated therein in relation to the bright stars such as Maghā, Chitrā and Rohinī are often double and sometimes even triple. Even after making due allowance for the

*The Arabian sea at that time covered the Indus Valley upto Multan and the seven rivers formerly fell into the sea directly as mentioned in the Rig Veda. Benares is popularly believed to have formed the new tenth continent and to have been supported or held up by the trident of God Shiva. This seems to allude to the age when the Bay of Bengal had receded from Haridwar as far back as Benares which at that time might have formed an Island at the mouth of the Ganges.

Even within living memory large areas are raised up by the gradual upheaval of the sea-bed and the present Island of Bombay which formerly consisted of seven separate Islands, is an instance. The rising and sinking of surfaces surely do take place in periods much shorter than those taken up in the formation of Geological Strata. Central India and the Deccan then formed a triangular island called Jambudvipa with the Pārasnāth, the Aravali and the Nilgiri peaks at its three corners. In the Purāṇas the Godavery is called वृद्धगंगा i.e. the old Ganges, probably in comparison with the later time of appearance of its younger sister the Himalayan Ganges.

The other Himalayan rivers Gogra, Gomati and Gandaki being at that remote time mere mountain torrents, the Rigveda omits their mention and begins with the Ganges the enumeration of the seven rivers viz. इमं मे गंगे यमुने सरस्वति &c.

interval that separated them, they (the positions) are utterly irreconcilable and contradictory. Even the first day of the battle being mentioned with reference to two Nakshatras as Maghā and Mṛigashirsha, cannot be fixed. This ought to have been a sufficient warning to me at least to give up the attempt as hopeless. I now think that the inconsistency between the double and triple positions of the same planet can only be explained by the probability that the statements must have been later interpolations in the epic, by persons quite ignorant of astronomy, and that their object must have been simply to produce awe and terror in the minds of the persons addressed about the coming catastrophe.

10. My friend the late Mr. Trimbak Gurunath Kale has directly attacked the problem in his book called 'Purāṇa Nirikṣhaṇa' and has at last solved the question most satisfactorily. The evidence collected by him from independent sources proves that the battle of Kurukshetra took place in the year B. C. 1263. I shall not here repeat all the details of the evidence which can best be gathered from his own book. I shall content myself with quoting here one or two of his cogent evidences corroborating his conclusions.

The Bhavishyapurāṇa gives the date of the battle as follows :—

भविष्यात्वे महाकल्पे प्राप्ते वैवस्वतेऽन्तरे
अष्टाविंशो द्वापरांते कुरुक्षेत्रे रणोऽभवत् ॥

The meaning of this verse is that out of the total period of the Bhavishya Mahākalpa containing 14 Manus, only six Manus, 27 Yugas and three years had elapsed when the battle of Kurukshetra took place. A

Manu being equal to a period of two hundred and eighty eight years and a Yuga to a period of four years we can very easily calculate the date as shown below :-

The year of the beginning of the Mahākalpa or Kalpādi which was the same as Kalyādi i.e. beginning of Kaliyuga was B.C. 3102.

Deduct the years since elapsed—	B.C. 3102
Manus $6 \times 288 = 1728$	
Yugas $27 \times 4 = 108$	
Dwapara 3 = 3	
	<u>1839</u>

Therefore the year of the battle was.....B.C. 1263

11. The following verse from Vāyu Purāṇa proves the same thing.

महादेवाभिषेकात् जन्म यावत्परीक्षितः
एकवर्षसहस्रं तु श्रेयं पञ्चाशदुत्तरं (१००००-५०) ॥

Parīkhshit was the son of Abhimanyu and was born in the first year after the great battle. King Chandra Gupta whom the Greek writers mention by the name of Sandrokottas, is often called Mahādeva or Mahānanda in the Purāṇas. The coronation of Chandra Gupta took place in the year 312 B.C. and the verse mentions that 950 years had elapsed between the birth of Parikshita and the coronation of King Chandra Gupta. It is obvious then that in the opinion of Vāyu Purāṇa the great battle took place in the year 312 plus 950 equal to 1262 B.C.

12. Moreover the Mahābhārata contains many allusions to the five-year luni-solar Calendar of the Vedāṅga Jyotiṣha the date of which is proved to be B.C. 1400 (vide para : 5). This fact alone is sufficient

to establish the priority of the Vedāṅga Jyotisha to Mahābhārata, independently of any other evidence. Any date therefore which is subversive of the priority must be wrong. Mr. Kale's Purāṇa Nirikshāna is a mine of information about the Purāṇas. A perusal of it is sure to convince how patiently and impartially he has toiled on to disentangle the truth from fiction.

The Gavāmayana†

13. Mr. Kale gives an interesting account of the means employed by the ancient Aryans for keeping up a progressive record of the years elapsed since the beginning of the Kalpa i.e. B. C. 3102. For this purpose they used to perform a sacrifice called Gavāmayana every fourth year, and to commemorate it by composing on each occasion a new verse of 64 syllables in Brīhati Metre and adding it to the foregoing ones. The day of the Vishuvan that is, the day of the vernal Equinox was, I believe, chosen for these quadrennial sacrifices as being most suitable for testing the correctness of their reckoning by the actual observation of the sun rising due east on that day. Pandit Rudrapattan Shyāmshāstri of Mysore mentions that in one of such books called Brīhadukta there are as many as 460 quadrennial verses. They thus give an account

† The year of the present Egyptians called Coptes contains 12 months, each of 30 days at the end of which five complementary days are added and also a sixth one at the end of the fourth year. These days they call Epagomenes. Can there be any connection between the words Gavāmayana and epagomene which resemble each other so much both in sense and sound ? At present I leave it as a query.

The Puranic yugas in Sec. 12 are no doubt identical with the Gavāmayanas of the Smritis.

of the lapse of $460 \times 4 = 1840$ years since the Kalpādi or Kalyādi and thus bring the Aryan Chronology down to the year B. C. $3102 - 1840 = 1262$ which is exactly the year next to that of the battle of Kurukshetra. This shows beyond any doubt what pains and care did the ancient Aryan Rishis bestow on their Chronology by making it a part of their religious duty. The charge that the ancient Hindus did not realise the importance of chronology is therefore groundless.

The summary of events in the order of time.

14. The following is a summary of what has been discussed in the foregoing pages. It shows that the literature of India, although it is in a legendary and mythological form, is based on much that is valuable and real. To discern facts from fiction in it, all that is needed is an impartial and intelligent spirit of research in the light of modern science.

- B. C. 7500 The beginning of the era of Canopus described in the Brīhat-Samhitā.
- B. C. 7000 The probable commencement of the disappearance of the sea from the Gangetic basin.
- B. C. 4350 The year of the first occultation by Jupiter of the Star Pushya, as mentioned in the Taittiriya Brāhmaṇa.
- B. C. 3000 The age when the cluster of the Pleiades used to rise due East, as stated in the Śatapatha Brāhmaṇa.
- B. C. 1400 The date of the observation of the Solsticial Points described in the Vedāṅga Jyotiṣha.

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B. C. 1263 The year of the battle of Kurukshetra ascertained from the Bhavishya and Vāyu Purānas.

A. D. 290 The initial point of the Hindu Ecliptic was fixed as being diametrically opposite to the star Chitra.

The Calendars in use in India during the present Kalpa.

B. C. 3100—B. C. 1400 The solar Calendar with a cycle of 4 years.

B. C. 1400—A. D. 300 The luni-solar Calendar with a cycle of 5 years.

A. D. 300—Present time The luni-solar and planetary Calendars with the Jovin cycles of 12 and 60 years.

Determination of the First Point of Asvini.

15. This probem has hitherto baffled all attempts at solution. Eminent scholars like Colebrooke, Bentley, Whitney and Bāpudev have identified it with the insignificant star ξ picium on no other evidence but its extreme proximity to the Ecliptic within the limits of the Asterism Revati. Dr. Thibaut does not however concur in their opinion for the reason that it brings the composition of the early siddhāntas to a much later date than what is compatible with other considertions.

My friend Mr. Narhar Venkatesh Kolhatkar, B. A. has reccently discovered a stanza in the Pañcha Siddhāntikā of Varāha-Mihira and has succeeded in completely settling the question by its aid. The Stanza runs thus :—

पित्र्यस्य स्वक्षेत्रे पष्ठे चांशे (126°) समायोगः ।
चित्रार्धाश्रमभागे (180°) दक्षिणतः संस्थिते त्रिभिर्हस्तैः ॥

The Stanza occurs in a Section of the work devoted to the statement of the Latitudes and Longitudes of seven conspicuous stars favourably situated for occultation by the Moon. In this Stanza the longitude of the Star मधा (Regulus) is stated to be 126° and that of the star चित्रा (Spica) to be 180° from the common initial point on the sphere. The latter longitude shows that the First point of Aśvinī was situated diametrically opposite to the star Spica and the former longitude of the star Regulus fully corroborates this statement. There can be no doubt therefore that according to the original Sūrya Siddhānta the first point of Aśvinī lay $43'$ to the East of the Star μ picium which was therefore the junction star of Revatī, and not ξ picium as hitherto supposed. The longitudes of the remaining 5 stars (पुष्य excepted) are in error of less than 2 degrees and therefore can not modify the above conclusion.

It is rather strange that a stanza giving such valuable information should be passed over by so many able scholars. Mr. N.V. Kolhatkar therefore deserves high praise for his happy discovery. Dr. Thibaut's failure can be partly attributed to the faulty emendation of the original Stanza, made by his collaborator Pandita Mahāmahopādhyāya Sudhākar Dwivedi of Benares. The discovery carries back the probable time of the composition of the five Siddhantas to a date not later than 300 A. D. which is earlier by a century assigned to it by Dr. Thibaut.

The conclusion.

16. I have tried in this paper to refer to a few of the pre-historic facts and to determine their dates in the light of modern science but on quite new lines of procedure, calling in the help of the unerring celestial eras of gigantic durations. I have also explained the method of calculating them. Should any future antiquarian be fortunate enough to meet with similar reference to the star Canopus in the Assyrian and Egyptain inscriptions, my table given in Section 7 will, I hope, help him at once in the determination of their date. The dates in the table may be compared to colossal light-houses set up by God to help men in their navigation, over the ocean of Time.

PERSIAN

PERSIAN AND ARABIC WORDS IN MARATHI.

BY

M. T. PATWARDHAN M. A.

The number of words of Persian and Arabic origin in use in the literary Modern Marathi is slowly dwindling down. Most of our educated men are well acquainted with Sanskrit ; and the effect of this knowledge on the development of Marathi has been conservative and to some extent unfortunate. Many words of Sanskrit origin that in course of centuries went through changes suitable to the genius of Marathi were roughly and ruthlessly restored to their original purity, and their naturalised forms were relegated to be used by women and by the uneducated. Ignorance of the historic development of the language and literature of Marathi has rendered a host of noble vigorous words of the 17th, 18th, and the first half of the 19th. centuries obsolete and dead. Thus while the natural resources of Marathi are lying unexplored and unutilised, the tendency of borrowing from Sanskrit is on the increase and is a sure sign of our linguistic bankruptcy.

In the department of philology there is a foolishly patriotic attempt made to trace every Marathi word through a real or an imaginary pedigree to its presumed Sanskrit ancestor. It was with a view to lodge an emphatic protest against this activity that the study of Persian and Arabic words in Marathi was begun. It was gradually discovered that a good many of the changes were uniform and regulated by certain fixed rules of

naturalization. Some of these rules may have to be modified in the light of further knowledge. Some new rules might be found out governing the changes of a few words which to-day appear to be arbitrary and unaccountable. It is with a hope that my efforts will inspire others to undertake to study the genius of Marathi, that a few of the results arrived at by me are placed here for sympathetic criticism.

1 अ preceded by आ (i) is changed to य :

आयना < आइना ; कायदा < काइदा ; कायम् < काइम् ; जिरायत् < झिराअत् ; नायव् < नाइव् ; फायदा < फाइदा ; लायक् < लाइक्.

(ii) or it is dropped : आदा < आइदा ; अजमास् < आइमाइश् ; आरास < आराइश् ; जमात् < जमाअत् ; ताफा < ताइफा ; पैदास् < प्यदाइश् ; फर्मास् < फर्माइश् .

2 There are a number of words in which आ followed by long आ, ई or ऊ came to be pronounced short. There being no separate letter to represent this short ओ sound, it was represented by अ or आ ; and when represented by अ it came to be pronounced in course of time as such : अजमास, अदा ; अप्कारा < आव्कारा ; अब्नूस् < आव्नूस ; अव्दागीर < आफ्ताव्गीर ; अवाद् < आवाद् ; अस्मान् < आस्मान् ; चलाख् < चालाक् ; तलाव् < तालाव् ; बदाम् < बादाम् ; बवर्जी < बावरची ; पलाण < फाठू पालान् [cp. सं. पल्ययणं] अईन् < आईन (rule) ; अलिजा < आलीजाह ; हळ्ही < हाली ; हंशील < हासिल् ; अवू < आवू ; अक्कू < आलू ; दरोगा < दारुधा.

3 Penultimate आ is (i) changed in a few words to अ : दालन् < दालान् ; दौत् < दवात् ; नालस्ती < नारास्त + ई ; मिसल < मिसाल ; मुलाखत् < मुलाकात् ; मुदारत् < मुदारात् ; सुरई < सुराही ; पायमळी < पायमाळी (ii) and in a few others is so drawled out that it is represented by आई or आय : बागईत < बाघात् ; विछाईत < विसात् ; वायदा < वअदा ; मायना < मअना.

4 Short इ preceded by आ is changed (i) to अ : अजमास् ; अदा ; आयना ; आरास् ; आशक् < आशिक् ; काफर् < काफिर् ; कायम् ; खातर् < खातिर् ; गाफल् < घाफिल् ; जावता < ज्ञाविता ; ताफा ; दाखल् < दाखिल् ; नाजर् < नाजिर् ; नायब् ; पैदास् ; फर्मास् ; बातल् < बातिल् ; मजालस् < मजालिस् ; मरातव् < मरातिव् ; माफक् < मुवाफिक् ; मालक् < मालिक् ; मुशाफर् < मुसाफिर् ; लायक् ; लवाजम् < लबाजिम् ; वाकव् < वाकिह् ; वाजवी < वाजिव् + ई ; वारस् < वारिस् ; शिफारस् < सिफारिश् ; सादर् < सादिर् ; हजर < हाजिर् .

(ii) or being penultimate is made long कावीज् < काविझ् ; कावील् < काविल् ; जामीन् < ज्ञामिन् ; जाहीर् < ज्ञाहिर् ; जवाहीर < जवाहिर् ; जालीम् < ज्ञालिम् ; फाजील < फाजिल् ; शावीत् < सावित् ; शाहीर् < शाइर् ; सामील् < शामिल् ; साईस् < साइस् ; हंशील् ;

5 इ followed by या is dropped : अखत्यार < इखतियार ; प्याला < पियाला ; प्यादा < पियादा ; म्यान् < मियान् ; or (ii) आ is substituted for both : कज्जा < कझीया ; गाशा < घाशिया ; जादा < जियादा ; जाफत् < जियाफत् ; तकवा < तक्खिया ; दानत् < दियानत् ; शाई < सियाही ; शास्त्र < सियासत् .

6 Short इ followed by ह is changed to ए : चेहरा < चिह्ना ; जिरे < ज़िरिह् ; केरिस्त < फिह्रिस्त् ; बेहेतर < बिहत्र् ; मसाले < मसालिह् ; मेहनत् < भिहनत् ; मेहराफ् < मिहराब् ; मेहर < मिहर ; शेतखाना < सिद्धत्खाना .

7 Long ई followed by आ is generally shortened to इ : अलिजा ; इमान् < ईमान् ; इराण < ईरान् ; कविला < कबीला ; खजिना < खझीना ; खिसा < कीसा ; गंजिफा < गंजीफा ; गालिचा < गालीचा ; जिना < ज्ञीना ; दिवाल् < दीवार ; पिसाव् < पीशाव् ; विचारा < वीचारा ; विमार < वीमार् ; मिजान् < मीजान् ; मिना < मीना ; मिरास् < मीरास् ; शिसा < शीशा ; शिया < शीआ ;

(ii) but is changed to ए in तबेला < तबीला .

8 उ followed by ह is changed to ओ : तोहमत < तुहमत ; मोताद् < मुहताज् ; मोहबत् < मुहब्बत् ; मोहीम् < मुहिम् ; मोहरा < मुहरा ; मोहोर < मुहर ; मोहरम् < मुहरम् ; मोसबा < मुहासबा ; सोबत < सुहबत .

9 उ followed by आ is dropped : माफ < मुआफ् ; माफक < मुवाफिक् ; मामलत् < मुआमलत् ; मामला < मुआमला ; मार्फत < मुआरफत् .

10 Penultimate ऊ like penultimate इ is lengthened
चावूरु; झूलू<जुलू; नाजूरु; पूरु.

11 ऊ followed by आ is shortened to उ : सुलाख<सूराख्; कुजा<कूझा; तुमार<तूमार्; दुवार्; तुफान्<तूफान्; नमूना<नमूना; सुमा<सूबा.

12 The second conjunct in monosyllabic words is split up (i) by अ : इल्म्; इस्मू; उमर; कदर्; कबर्; कसव्; कसर्; कहर्; गरम्; जखम्<झधम्; जरब<झर्ब्; जहर<झहर्; दफन्<दफ्न्; दरद<दर्द्; नगद्<नक्द्; नजर्<नझर्; नरद्; नहर्; नरम्; फजर्; फरक्; फरस्<फर्श्; फरज्<फर्ज्; फरद्; बरफ्; मगज्<मझ्; मरद्; मोफत्<मुफ्त्; वखत्<वक्त्; वजन्<वझन्; शहर्<शहर्; सरवत्<सरव्त्; सदर्;

(ii) by long ई if the preceding vowel is short इ : जिकीर<ज़िكِير्; फिकीर<फिक्क्; शिलींग<शिल्क्; हिरीस्<हिरस्;

(iii) by long ऊ if the preceding vowel is short ऊ : उजर्<उज्; उरूस्<उर्य्; कुल्प<कुफ्ल्; गुरुज्<गुर्ज्; जुल्म्<झुल्म्; बुरुज्<बुर्ज्; झुल्प<झुल्फ्; मुल्ख<मुल्क्; हुक्म्<हुक्म्.

13 The conjunct स्त् alone was kept unsplit: गस्त्<गशत्; तस्त्<तशत्; फस्त्<पस्त्; वंदोवस्त्; मस्त्; सुस्त्. Then the educated began to keep ई and क्त् unsplit : खुर्द्; जर्द्<झर्द्; दर्द्; फर्द्; मर्द्; सर्द्; तक्त्<तख्त् (note however तकट derived from the same word) नक्त्<नक्द्; वक्त्; सक्त्; and lastly the conjunct is retained in the following words : इश्क (इशक was used) अर्जे<अर्जी; कर्जे<कर्ज्; खर्चे; गर्के<घर्क्; शर्ते; उर्ह and वर्ह. This tendency to stun over अ between क् and त् and between र् and क् or ख् is responsible for the forms अर्के, वर्खे and फर्क which were originally अरक्, वरक् and फकत् respectively.

14 Islamic words in being naturalised in Marathi appear to have dropped all doubling of consonants. कसाव<कस्जाव्; दलाल्<दल्लाल्; नबाव<नब्बाव्; फरास्<फराँश्; बकाल<बक्काल्; हमामखाना<हम्माम्मखाना; हमाल्<हम्माल्; हजाम्<हज्जाम्; सराई<सराई्; अलवत्<अल्वत्ता; अवल्<अव्वल्; कुवत्; गुल्छव<गुल्शब्बू; खास्<खास्स्; तालुका<तबल्लुका; तवकल्<तवक्कुल; हुरा<हुर्रा; दिमत्<

झिम्मत् ; मनुका <मुनका ; मयत् <मणित् ; मिनत् <मिनत ; मुदत् <मुदत ; सुर्वत् <सुरवत् <मुरवत ; मोर्तव <मुरत्तव ; मोहबत् <मुहबत ; मोहरम् <मुहरम् ; नाहक् <नाहक ; शेतखाना <सिंहूतखाना ; हुजत् <हुजत ; रोजमुरा <रोजमरा.

15 But Marathi developed certain double consonants (i) In all monosyllabic words if the conjunct ended in ल् the first consonant of the conjunct became double before taking the separating अ : अकल् <अक्ल ; अदल् <अद्ल ; अम्मल <अम्ल ; अस्सल <अस्ल ; कत्तल् <कत्ल ; गजल् <घजल ; नक्कल् <नक्ल ; फस्सल् <फस्ल ; रत्तल् <रत्ल ; शिक्कल् <शिक्ल ; अत्तर् <इत्र ; हुनर् <हुनर ; वेदेत्तर् <विद्तर ; वहादर् <वहादुर ; जिन्नस् <जिन्स ; रक्कम् <रक्म ; मुक्काम् <मुकाम् ;

(ii) If ला or ली in words of two syllables is preceded by अ or short इ the ल becomes double : आली <अली ; अलाउद्दीन् <अलाउद्दीन ; किला ; किली <किलीद ; गिला <गिला ; जिल्हा <झिल्हा <झिला ; पायमली <पायमाली ; फैसला <फयसला ; सल्ला <सलाह ; हाली <हाली ; हला <हम्ला ; हिला <हीला ; इत्तला <इत्तिला ;

(iii) In a few words of two syllables when the second letter has long आ or इ and the first has short अ or इ the consonant of the second letter becomes double : निका <निकाह ; नकी <यकीन ; सही <सअः+ई ; हुहा <उहदा ; किता <किताव ; मत्ता <मताअ ; फना <फना ; रब्बी <रबी ; विच्ची <बीबी.

16 The following are examples of metathesis : अजून् <हनस् ; अस्तीनी <आस्तीन ; अनामत् <अमानत ; अमदानी <आमदनी ; कुल्दप् <कुफ्ल ; गंज <झंग ; जनावर <जानवर ; जिल्हा <झिला ; तोशीस् <तवशीश <तश्वीश ; नकी <यकीन ; पलिता <फतीला ; पन्हा <पनाह <पहना ; बखर <खवर ; दुद्धक् <बुड्हर्ग ; मनुका <मुनका ; महशर <मस्हर ; शाहमुर्ग <शाहमुर्द ;

Changes

17 Consonant changes are not discovered to be quite regular; and so I shall in many cases content myself with only noting them.

(i) क् is changed to ख् in the following : इलाखा < इलाका ; चलाख < चालाक् ; मिळखत् < मिल्कत् ; मुलाखत् < मुलाकात् ; मुख्ख् < मुल्क् ; हलाखी < हलाक् + ई ; बुरखा < बुक्की ; वखत् < वक्त् ; वाखा < वाकिआ ; वर्ख् < वरक् ; रोखा < रुक्भा ; पोशाख् < पोशाक् ; खवूतर् < कवूतर् ; खिसा < कीसा ; खिसमिस् < किशमिश ; खुजा < कूझा ; खुर्ची < कुर्सी ; खुर्नास् < कोर्निश ; दिमाख् is derived from दिमाघ् and वेचिराख < बीचिराघ्.

(ii) क् is changed to ग् in the following : तगदा < तकाज्जा ; तगाई < तकावी ; नगद् < नकद् ; नगारा < नकारा ; मगदूर् < मकदूर् ; मशागत् < मशकत् ; हकीगत् < हकीकत् .

18 ख् is changed to क् in the following :—किताब् < खिताव् ; मस्करी < मस्खरई ;

(ii) ख् preceding त् or श् is changed to क् ; कंबक्ती < कम्बख्ती ; पोक्त < पुल्त ; तक्ता < तख्ता ; सक्त < सख्त् ; वक्ती < वख्ती ; वक्तीस < वख्तीश .

19 ज् is changed to द् in the following :—कागद् < काघझ ; युदस्तां < युझस्ता ; तगदा < तकाज्जा ; बुदुक् < बुझर्ग् ; मोताद् < मुहताज् ; नदर् < नझर् ; हौद < हौझ .

20 द् is changed to ज् in the following :—खिजमत् ; नर्जीक् < नझदीक् ; मजर् < मझदूर ; बुर्जी < बुर्दी .

21 ग् final is changed क् in the following :—मुबलक् , बुदुक् .

22 श् is uniformly changed to ज् but it remains to be seen where this ज् is palatal and where dento-palatal.

(i) Final ज् is dento-palatal except in काबीज् ;

(1) from ज्—इलाज् ; ताज् ; फौज् ; बुरुज् ; रिवाज् .

(2) from श्—अर्जे ; अंदाज् ; ऐवज् ; कर्ज् ; गज् ; गरज् ; जहांबाज् ; जहाज् ; तजवीज् ; फरज् ; मगज् ; मेज् ; रोज् .

N. B.—घ् and झ् are uniformly changed to ग् and झ् respectively.

(ii) Initial ज is similarly dento-palatal except in जवानी; and in जहांगीर, जहांपन्हा when it is occasionally dentopalatal.

(1) from झः—जवाव्; जमा; जमात्; जनावर्; जवाहीर्; जहांवाज्; जहांगीर्; जहाज्; जलसा.

(2) from झः—जस; जकात्; जखम्; जरूर्; जवर्; जमीन्; जवानी; जनाना; जर्; जरव्; जर्द्.

(iii) Medial ज is similarly dentopalatal except in मेजवानी the pronunciation of which is modelled upon that of जवानी and in अजब.

From झः—हुजत्; गहजब; नजर्; नाजर्; हजर्; लवाजमा; लज्जत्.

(iv) झा appears to be very arbitrarily pronounced one way or the other; Palatal from जा; दर्जा हजाम; जामानिसा; from झा; कझा; कुझा; कवजा; गुल्जार्; जाहीर; जालीम; मजा.

Dentopalatal <जा; इजारा, जागा, जाव, जासूद्, जामदार, दर्जा, सरजाम्.

” <झा; आजार्; इजा; जामीन्, ताजा, हजार्, हजारा, रजा; विजार्; बाजार्; मजा.

(v) झि, झी are never dentopalatal:—

From झ; अंजीर; खंजीर; गंजीफा;

” झ; अर्जा, इतराजी; एवजी; काजी; गाजी; खजीना; जिकीर्; जिम्मा; जिरायत्; जिल्हा; जिनगानी; जीन; ताजीम्; दर्जा; नजीक; फर्जी; फर्जीती; फाजील; मर्जी; राजी; साजिदा; हजीर.

(vi) झु, झ् are dentopalatal:—From झ् माज्जम्;

From झ; जल्म; तराजू; बाजू; मजूर्; हुजर्.

(vii) In compounds झ् is dentopalatal; as in मज्जलस; मज्जकूर; मज्जबूत; झुज्जबी; हज्जरत.

23 त् is changed to द् in वदक्<बतक् ; तोस्तान्<तोशदान् ; अबदागीर्<आफ्ताब्शीर्.

- (ii) Final त् is indifferently changed to द् or retained. ताकत् - द् ; तावूत् - द् ; नावूत् - नावूद् ; नौवूत् - द् ; पसंत् - पसंद् ;
- (iii) Final द् is changed to त् in खुशामत्, मदत्, पसंत् and नावूत्.

24 द् is changed to ड् in डफ् and डाग्.

- 25 (i) न् after र् becomes ण् :—इराण् ; कर्णा; कुराण् ; गुजराण् ; तराणा; दुर्बीण् ; नजराणा; बन्हाणपूर; परगणा; हैराण् ; वैराण् .
- (ii) न् is changed ण् in the following :—बयाणा, फलाणा, मुलाणा, दिवाणा, निशाण,—दाणी; दाणा; फणस, बुणगा, बहाणा; सावण; and in नलीम्, न् is changed to ल्.

26 प् is changed to फ् in फस्त्; but फ् is changed to प् in अथ्राप्, कुल्पप्, तपशील्, दसर्;

27 व् is changed to फ् in शिताफी and in तलफ्<तलव् but to प् in the following :—गुह्यप्<गुरुव् ; खूप्; जप्त् ; अप्कारा; चोपदार्; किनखाप्.

28 व् is changed to व् in the following :—गिलावा; तावदान्; तलाव्; बागवान्; मेजवानी; वरात्; वाजवी; and व् is changed to व in the following खल्वत् ; जबाव्; जुजबी; तबेला; तस्वीर; नबाव्; विदागी; विशाद्; ववर्जी.

29 व् joined to र् becomes भ्र; as अभ्रक्, अभ्रा, इभ्रत्, इभ्रामखान, कारभार. In भिस्ती<विहिस्ती the ह् coalesces with व and मुभा<सूबा is perhaps so by way of analogy with मुभा.

30 र् is changed to ह् in the following कुडते; गुह्यप् ; ज्ञाह्; जोडा; पडदा; वडतर्फ़; मुडदा. र् is changed to ल् in the following; दालचेनी; दिवाल्; मलम्; नालस्ती; मुलाख्; सहल्; खलिता.

- 31 (i) श् joined to त् is changed to स् :—कुस्ती; गस्त् ; गुदस्त्; गुमास्ता; तस्त्; पुस्ती; केरिस्ता; शिरस्ता.

(ii) Final श is changed to स :—अजमास् ; आराम् ; खिसमिस् ; खुर्नास् ; तलास् ; तोशीस् ; पैदास् ; पायपोस् ; फरस् ; फरास् ; बक्षीस् ; लास् ; शावास् ; शिफारस् ; शिस्त् .

(iii) Initial श is changed to स in the following सत्रंजी; समशेर; समई; सरकत; सरबत; सार्माह्ल; मुतर; मुजाउद्दौला; मुरवार्; मुरु; मुमार्; सैतान्.

(iv) श is changed to छ in the following words गुरुछबू ; छवी; छविना; छानदार; बिछाइत however is from विसात.

32 (i) स followed by इ or ई becomes श :—शिका; शिफारस् ; शिपाई; शिकंदर् ; शिद्दी[<]सिद्दीक् ; शिरपाव; शिरका; शिरस्ता; शिलेदर; शिवाय; फारशी; नामोशी; खलाशी; तपशील; तहशील; वशीला; हंशील; तक्षीर् ; तक्षीम् ; नशीव; मशीद् .

(ii) स is changed to श in शावीत्; शाई; शेतखाना; ताशा; मुशाफर्; हिशेव्.

(iii) स followed by द् is changed to ज् as in तजबीर्, कजबीण्, अजबाव्, निजबत्.

33 Final consonants after आ, ई or ऊ being indistinctly pronounced are dropped.

(i) ह् is dropped in :—अलिजा; असफजा; अफवा; जागा; तनखा; दग्गा; निका; निगा; पागा; बुणगा; सळा; वाहवा; छवी; तंबी; सही; गू; जिरे; मसाले.

(ii) क् is dropped in :—शिद्दी;

(iii) न् is dropped in :—कलाबतू; कानू; खुर्जी; फर्जी.

(iv) द् is dropped in :—किल्ली.

(v) य् is dropped in नक्की[<]नक्कीय[<]यकीन्.

(vi) व् is dropped in :—जोडा; झाइ; कित्ता.

34 (i) Final ही is often changed to ई as in बादशाई, शाई, मुरई, सरबराई, शिपाई.

(ii) ह is dropped in the following words :—तारसखाना; पैलू; पैलवान्; केरिस्त; फज्जा; फजीती; मसल्ल; मुलाजा; मुशारा; मोताद्; मोसवा; सोबत् .

35 ह् coalesces with the previous syllable in गुन्हा, तन्हा, जहांपन्हा, मुभा, and खोखो <काह्काह्; ह् appears to be inserted in the following words गहजब् <धजब्; जिल्हई <जलई; कलहई <कलई.

36 (a) In अंबारी <इमारी; कंवर <कमर; उंबर <उमर; खंबीर <खमीर; a व् is inserted.

(b) In जिंद <जिन्न्; कंद <कन्; and बुंध <बुन् a द is added to न्.

(c) मुरंबा <मुरब्बा is so formed because of its connection with अंबा; शंकरपाल is derived from शंकरपारा cf. the other form साखरपारा.

The final व in उमराव and शिरपाव is due to popular etymology which connects the words with राव and पाव (Hindi for foot) respectively.

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